

AES GRAVE

A STUDY OF THE CAST COINAGES OF ROME
AND
CENTRAL ITALY

BY
EDWARD A. SYDENHAM M. A.

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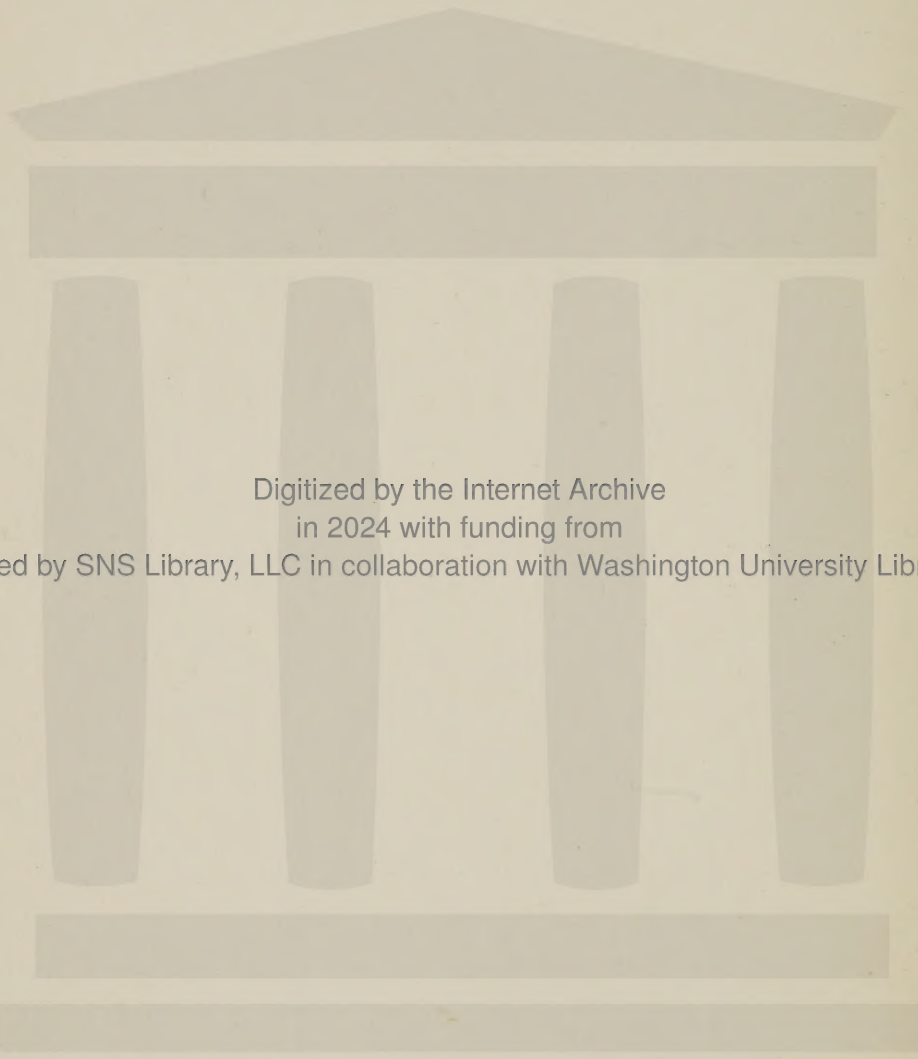
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PREFACE

The reproach that the Roman Coinage has not received the attention it deserves no longer holds. Recent years have seen the publication of exhaustive and scientific text-books on the coins of the Republic and the Empire, not to mention a mass of lesser literature in the shape of essays and pamphlets. Yet up to the present no complete study of the Aes Grave has been set forth in English.

Although the Aes Grave steps outside the strict confines of Roman numismatics, it nevertheless forms the first chapter of the long and complex story of the Roman Coinage. Origins are always difficult to trace, but to the student origins are vastly important since only by an appeal to them can many a later problem find its solution.

Actuated by these considerations I venture to offer this small hand-book on the Aes Grave to my fellow students and collectors in this Country and America.

Acknowledgment of my profound indebtedness to Dr. Haeberlin and other writers will be found in the course of the work. But I desire also to thank the authorities of the British Museum, the Museo Kircheriano, Rome, the Museo Archeologico, Florence, and the Museo Civico, Bologna for allowing me facilities for studying coins ; and to Messrs Spink and Son for securing a series of plates reprinted from recent sale catalogues. To illustrate every variety described in the Corpus, though desirable, has been found impossible. No series however, has been omitted and the twenty-eight plates will, it is hoped, meet all practical requirements.

E.A.S.

Oxford, 1926.

INTRODUCTION

The evolution of the Roman coinage presents a study that has no exact parallel in ancient numismatics. In the first place, it is remarkably complete on account of the abundance of material which enables us to trace each step in the process, from the shapeless lump of metal to the highly finished coin. Secondly, it is surprising, because long after the Greek-speaking Italians had perfected a coinage that combined the qualities of beauty and utility as completely as any in ancient times, we find the Roman laboriously feeling his way from devices only comparable with those of an intelligent savage. And when, towards the end of the fourth century B. C., he adopted a coinage of his own, the Roman seems to have flung defiance at all existing monetary systems. The standard on which he based his coinage was not gold, silver or electrum, like the Greeks, but bronze, a metal intrinsically of little value ; nor can his first coins lay claim to much in the way of artistic beauty or practical utility.

The Roman, however, was essentially a clansman of central Italy ; and he designed his coinage not for foreign but for inter-tribal commerce. The character of his coinage, therefore, was

essentially central Italian. Bronze was in common use and was ready to hand ; gold and silver were not. But so long as the Roman turned his eyes homewards this did not signify.

To appreciate the historical setting of the Aes Grave we must banish from our minds the conception of Rome as a ruling world-power, and picture her an aspiring Italian state, with the power of conquest latent within her, while as yet her fortunes hung in the balance.

Her coinage was inaugurated at one of the most critical periods in her history ; and this gives to the Aes Grave a unique interest. Rome had begun to lay the foundations of a central Italian government. The Latin League was no more. Latium, Campania and a great part of Apulia were under her control, and opposition on all sides was becoming appreciably weak. The Hellenized South retained its autonomy for the present, but before Rome could seriously turn her attention in this direction, troubles nearer home from the Samnites and Etruscans kept her hands full. At this critical juncture, ere Rome could consolidate her newly acquired power over the central states, Pyrrhus appeared on the shores of Italy proclaiming himself the champion of liberty against Roman oppression. Backed by the Greco-Italians of the south, he weakened or destroyed the ties which bound many of the city-states to Rome, and inspired Samnium to make a final struggle for independence. Pyrrhus was little more than a spectacular hero, and his failure added no small prestige to Rome. The submission of Samnium and Etruria which followed made Rome virtually the mistress of two-thirds of Italy. But before the different states could be unified, Rome was called upon to face her most formidable of all rivals, Carthage. The Punic wars threatened Rome with extinction but ended by creating her a world-power.

This phase of her history carries us beyond the range of our present subject ; since it is in connexion with Rome's expansion in central Italy that the Aes Grave is historically important.

LITERATURE

The first serious attempt to classify and explain the Aes Grave was the publication, in 1839, of the catalogue of the Kircherian collection in Rome. The work is fully illustrated, and while it makes little pretence to being a critical investigation, nevertheless, possesses value as a Corpus of the coins.

Foremost among writers who have approached the subject from a critical and scientific point of view is Theodore Mommsen ; and although some of his conclusions are demonstrably wrong, his work remains a monument of sound scholarship.

The more recent researches of Samwer, Bahrfeldt and Haeberlin have revolutionised many of the traditional theories respecting the Aes Grave. The coins have largely been redated and re-attributed ; their metrology has been set on a new footing, and highly complex theories of weight-systems have been elaborated.

It is impossible, in these days, to study the Aes Grave and its problems without due acknowledgment to the great work of Dr Haeberlin, the greatest work, in fact, hitherto produced on the subject. And it is no disrespect to suggest that he has not said the last word on certain points, or to venture on conclusions different from his. Fresh evidence is bound to reveal itself from time to time ; and a restatement of theories and conclusions becomes necessary. Dr Haeberlin, however, has achieved a work, which few others would have the patience or ability to attempt, in the compilation of a list of specimens drawn from

the most important of the world's collections. Here the student may dig to his heart's content ; and, in so wide a field, the possibilities before him are well nigh endless.

In the following pages reference will be made to *L'Aes Grave del Museo Kircheriano*. Rome. 1839. — Riccio. *Le Monete della antiche famiglie di Roma*. 1843. — Mommsen. *Histoire de la Monnaie romaine*. Transl. Blacas. 1865. — Garrucci. *Le Monete dell' Italia antica*. Rome. 1885. — Babelon. *Monnaies de la République romaine*. Vol. I. 1885. — Bahrfeldt. *Gesch. des alt. rom. Munzwesens*. — Haeberlin. *Aes Grave das Schwergeld roms und mittelitaliens*. — Id. *Systematik*. (See also abridgment of Haeberlin's theories in Hill, *Hist. Rom. Coins*, p. 5, ff.). — Hill. *Historical Roman Coins*, pp. 1-37. 1909. — Grueber. *Coins of the Roman Republic*. 1910 (B. M. C.). — Comparette. " *Aes signatum* ". *American Journal of Numismatics*. 1918.

Recent Sales of Aes Grave. — Hirsch (Munich) 1914 ; Cantoni (Rome) 1920 ; Santamaria (Rome) 1921 ; Vierordt (Amsterdam) 1923 ; Bonazzi (Lugano) 1924 ; Bement (Lucerne) 1924 ; Sambon (London) 1925.

Aes Rude.

At what date, or from what particular tribe or tribes, the Romans derived the idea of using metal for purposes of exchange in place of direct barter, we do not know. But probably long before the 6th Century B. C. the peoples of central, and possibly southern Italy used rough lumps of bronze, known as *aes rude*. It is certain, however that in the central Italian districts (including Rome), this primitive species of money continued in use long after Greek civilization had established silver currencies in the south.

The bronze lumps, which are held by numismatists to be examples of this primitive form of money, vary in weight from several pounds to less than an ounce. Generally they are shapeless fragments, sometimes they show signs of having been roughly cast or hammered into irregular cubes or bars, more rarely they are circular, elliptical or oblong.

But here we must add a word of warning. Fragments of bronze — literally *aes rude* — are found commonly enough in Italy. But whether they all served the purpose of money is beyond our present power to determine. All that can be said is that they are raw material, and that, at any rate, some of them may be the *aes rude* referred to by Pliny.

We can scarcely imagine that the Romans were unfamiliar with the highly civilised coinages of Magna Graecia, nevertheless for several centuries the *aes rude* was their only medium of exchange; and it is evident from specimens that, during this period, the *aes rude* passed through several stages of development. Thus, the earliest is the amorphous lump, later come the cubes and bars, and latest of all, the oblong, elliptical, and circular forms¹. These last closely resemble cast coins, except that they are without any sort of device or official stamp. It is, however, but a short step from them to the *aes grave*, which is Rome's first real coinage.

According to Mommsen's analysis² the *aes rude* contains 93.7 % copper and 6.3 % tin. In this respect, however, specimens seem to show some variation; and though copper is the main constituent the alloy is due simply to the presence of tin or other metals in the natural state. This metal, yellowish in appearance, termed bronze, became henceforth the standard

1. Bronze disks of varying sizes, and small gold and silver disks, have been discovered in Etruria. Cf. specimens in Mus. Archeol. Florence.

2. *Hist. de la mon. rom.*, vol. I, p. 175.

metal of the Roman coinage down to the end of the Republic. The "orichalcum" of the Empire is merely an improved form of yellow bronze produced by the addition of zinc.

Specimens of *aes rude* afford no evidence as to what particular weight standard prevailed in central Italy. Nor, when in use, could their values be determined without the help of scales.

Dr Haeberlin maintains that down to about the middle of the 3rd century B. C. no less than six different standards existed in Italy¹. It is obvious, therefore, that inter-tribal commerce could only have been conducted on rough and ready lines.

Aes Signatum.

The choice by numismatists of the term "Aes signatum" to designate the various bronze ingots marked with devices or types, is unfortunate. In the first place, any sort of stamped bronze is *aes signatum*, therefore the restriction of the term to a particular species is inaccurate. Secondly, as the ingots so designated differ not only in date and general appearance but probably also in the purpose for which they were designed, no single term can very well be applied to them.

Much of the confusion that has arisen with regard to these stamped ingots results from attempting to correlate objects which are essentially distinct from one another. The confusion began with Pliny's statement " Servius rex primus signavit aes ; antea rudi usos Romae, Timaeus tradit. Signatum est nota pecudum unde et pecunia appellata" ².

As it stands the statement is utterly misleading ; but as its fallacy has long ago been exposed, further criticism is unneces-

1. *Systematik.*, and *Zeit. f. num.*, xxvii.

2. *N.H.* xxxiii. 13. Cf. Cassiodorus, Var. Form. vii. 32.

sary¹. It serves, however, as a starting point from which to approach the problems connected with the so-called "Aes Signatum".

At the outset, therefore, it is important to distinguish the two classes of bronze ingots.

I. Stamped bars of varying dimensions, bearing simple devices such as fish-bone pattern, crescents, dolphins, twigs etc. ; also square blocks with $\overline{A}$ or $\overline{A}$.

II. Oblong or brick-shaped pieces, more or less regular in form, with types, Tripod, Caduceus, Pegasus, Elephant, etc.

CLASS I. *Stamped bars*. — In fabric the bars, and fragments of bars, with the fish-bone pattern and other simple devices, differ little from the unstamped bronze bars and indicate not a sudden change from *aes rude* but a gradual improvement upon it. In date they are probably anterior to the *aes grave*. Mommsen connects the introduction of "aes signatum" with the Decemvirs (B. C. 451), which is much too early a date for the bronze "bricks" of class II, but is by no means an improbable one for the bars of class I.

Some indirect support is given to this suggestion by enactments of the 5th century B. C. — e. g. the Lex Aternia Tarpeia and the Lex Menenia Sestia (B. C. 454-452) fix the payment of fines in cattle, but mention at the same time their equivalents in money or metal. The Constitution of the Twelve Tables (*circa* B. C. 450) orders fines to be paid in *asses* and *sesterces*, but makes no mention of cattle. The Lex Iulia Papiria (B. C. 430) definitely ordered that payments in money should replace payments in cattle.

1. "Aes Signatum" by T. Louis Comparette (*American Journal of Numismatics*, 1918, vol. LII) will be referred to in the course of this section. His treatment of the subject is entirely original and contains much useful criticism of existing theories. He comments at some length on Pliny and his authority, Timaeus.

This growing preference for payment in money rather than in kind, and the mention of *asses* and *sesterces*, seem to suggest that the money current was of a somewhat less inconvenient character than *aes rude*. If our evidence scarcely justifies the view that the stamped bars appeared under the Decemvirs, it undoubtedly points to some such change having occurred between B. C. 450 and 430.

The square blocks inscribed $\overline{\text{A}}$ or $\overline{\overline{\text{A}}}$ ¹ stand rather apart from the stamped bars, and are pretty certainly among the latest examples of money — if money they are — issued prior to the *aes grave*². Haeberlin interprets the monogram as TA which he suggests is an abbreviation of Tachna (i. e. Tarquinii), in which neighbourhood specimens of the blocks have been found. Garrucci and Willers read the symbol as $\text{II} \nabla$ ("Asses tres")³. Comparette rejects both views and maintains that the device which appears to be A is merely a development of the fish-bone pattern. Comparette's reasoning here is unconvincing and he is scarcely fair to Haeberlin, whose view has at any rate the support of finds. Further, there can be no reasonable doubt that the letter is A with a stroke or two strokes above, whatever it may stand for.

It seems probable then, that the stamped bars and blocks of class I are a form of currency and that they were designed for this purpose ; being in effect an improved form of *aes rude*. Opposed to this is Comparette's view that they are not money at all but merely metal bars cast privately as a commercial commodity. But in favour of the assumption that the stamped

1. Haeb. *Aes Grave*, p. 107.

2. It is not absolutely certain that these rare inscribed blocks are earlier than *aes grave*. They may be contemporaneous.

3. $\text{II} \nabla$ = *asses duo* would appear more obvious. But neither interpretation is probable. The weights of the pieces are, 438.11 and 343.80 grammes. (Haeb.)

bars are actual money is the strong probability that they were made before the aes grave. Metallic currency of some kind certainly existed in the 5th century B. C. ; and the distinctive forms of these bronze ingots suggest that they are examples of the money then current.

CLASS II. The *oblong* or *brick-shaped* pieces bear the following types :

- 1) Shield, on both sides.
- 2) Sword. Scabbard.
- 3) Corn-ear. Tripod.
- 4) Anchor. Tripod.
- 5) Trident. Caduceus.
- 6) Cocks and stars. Tridents¹ and dolphins.
- 7) Bull on both sides.
- 8) Eagle on thunderbolt. Pegasus, ROMANOM (pl. 1 and 2).
- 9) Elephant. Hog.

a) DATE. — It has been established beyond all reasonable doubt that the stamped "bricks" were not made until after the introduction of the aes grave. This view is held by Haeberlin, Willers, Compurette and others. Mommsen's date, B. C. 451, is obviously too early, since : (1) the style of art is late, and is characteristic of the end of the 4th or beginning of the 3rd century B. C.² ; (2) the types of the *Bull* and *Elephant* are connected respectively with the end of the third Samnite war (B. C. 290) and the war against Pyrrhus (B. C. 280-275).

The style and fabric of the "bricks" are sufficiently homogeneous to suggest that all the known examples were manufactured within a comparatively short period ; probably between 290 and 250 B. C.

1. Described by Garrucci, Milani, Compurette, etc., as "rostra of battle-ships", but "Tridents" seem more natural.

2. Haeb. and Willers, B. C. 312-269 ; Compurette, B. C. 320-254.

b) LOCALITY. — Evidence is strongly in favour of the stamped “bricks” being non-Roman ; that is to say, not made in Rome but elsewhere in Italy. Haeberlin, however, assigns two varieties to Rome, others to Capua, Latium and Campania ; his theory being that the “bricks” were associated with certain series of aes grave which he assigns to these mints. Haeberlin’s attribution to Rome of aes grave, other than the “Prow” series, is not supported by evidence. (See later, “Aes Grave”.)

Comparette argues that since the nine “bricks” are the work of Greek artificers, they were probably produced in Greek communities of southern Italy ; e. g. Tarentum, Croton, Rhegium, etc. He suggests further that certain of the types may be recognised as “city-arms”, e. g. : Trident = Tarentum ; Tripod = Croton ; Corn-ear = Metapontum.¹

However, a Greek style of art does not necessarily imply that the pieces were produced in Greek communities. The aes grave of Rome, Latium and Campania is essentially Greek in style. Indeed, throughout Republican times, practically all art, worthy of the name, was Greek art. On quite other grounds, however, we must assign the “bricks” to central rather than southern Italy.

c) ORIGIN AND USE OF THE STAMPED “BRICKS”. — The traditional view held by Mommsen and the older numismatists is that the stamped “bricks” are a form of state currency ; and in support of this it has been urged that the “bricks” are frequently found broken in half or into smaller fractions. This fact, while giving colour to the view that under certain circumstances the “bricks” may have been used as money, does not prove conclusively that this was their original use, since

1. Comparette, *op. cit.*, p. 21.

large ingots intended to be converted into coins, ornaments, weapons, etc., would naturally be broken into small pieces before being put into the crucible.

Further, as the "bricks" were certainly contemporaneous with the aes grave, and are found in districts where aes grave was in use, there would be no reason for breaking the large bricks into what would merely be asses, semisses, etc.

Milani even goes so far as to designate the "bricks", *Quincusses* and *Quadrusses*, i. e. multiples of the Libral As. But their weights are too variable (1830.0 — 1347.0 gms) to warrant a conclusion of this sort; and as they are without marks of value it is practically certain that they are not related *denominationally* to any of the aes grave systems.

It is almost inconceivable, too, that with the Campanian silver didrachms and drachms ready to hand, either the Romans or the Romanised peoples of central Italy would have resorted to so clumsy a method of augmenting their currency.

Although it may be taken as practically certain that the "bricks" were not originally intended for currency, it is equally certain that in some way they are connected with the aes grave. This is shown by the fact that, out of the 14 types that occur on the "bricks", 10 occur also on aes grave.

The Eagle on thunderbolt is not actually found on aes grave, but *Eagle* occurs on Asses 93, 94, 208; and Triens, 104. The elephant is found only on late aes grave of barbarous fabric. cf. Nos. 324-336.

The two unrepresented types are, Tripod and Corn-ear. The Tripod possibly corresponds with the "Apollo" type, as Haeberlin suggests. The Corn-ear occurs on Campanian didrachms (Obv. Head of Mars l.) and although it is not actually found on aes grave, the corn-grain is common.

TYPE	BRICK	AES GRAVE
Shield	No. 1	Sena Gallica (or Ariminum). <i>Quincunx</i> No. 202.
Sword	2	— <i>Quatrunx</i> No. 203.
Scabbard	2	— Id.
Anchor	4	Latium-Campania. <i>Sext.</i> Nos. 109, 175, etc., also Etruria 275-284.
Trident	5	Lat.-Camp. <i>Sext.</i> No. 109; Tuder, No. 213, etc.
Caduceus	5	Campania. <i>Sext.</i> Nos. 35, 40, etc.
Cock	6	Apulia. <i>As.</i> No. 134, Hatria. <i>Biunx</i> , No. 189.
Bull	7	Latium. <i>As.</i> Nos. 33. 34.
Pegasus	8	Campania. <i>Semis.</i> Nos. 44, 57, etc.
Hog	9	Lat.-Camp. <i>Semis.</i> No. 101.

This type-relation is far too complete to be merely coincidental. But if, as we have shown, the relation of the "bricks" to the aes grave is not denominational, practically the only alternative is that it is in respect of the metal. That is to say, the stamped "bricks" are probably ingots manufactured exclusively in connexion with certain mints of central Italy, not as coinage but for conversion into coins; the mints being indicated by types corresponding with those of the coins they issued.

Mr Fell points out that "the Etruscans possessed practically all the copper, tin and iron which is found in Italy, together with abundant timber for fuel (Strabo v. p. 222) and with a remarkable ability in working metals¹."

Thus, it may be suggested that the bronze "bricks", and possibly the marked bars, were not improbably produced in Etruria, and in these forms were conveyed to the mints of Rome, Campania and elsewhere.

As several other theories have been propounded, we can

1. R.A.L. Fell, "Etruria and Rome", p. 33.

hardly leave the subject of "Aes signatum" without some reference to them. At most, however, they only suggest occasional uses to which the "bricks" may have been put, and do not affect the view of their original purpose just stated.

It has been held that the "bricks" are :

1) *Religious or votive tablets*. — This theory seems to have been suggested by the fact that stamped "bricks" have not infrequently been found deposited in sacred springs or at the sources of rivers ¹. This does not prove, however, that their use was primarily a religious one. There is no evidence that the Romans ever issued bronze pieces specially for such purposes ; and apparently rough fragments of metal, aes grave and ordinary coins were used indiscriminately as votives, since all these species occur jumbled together in these deposits ².

2) *Quasi-medallions of a commemorative character*. — Comparette has elaborated this view with respect to six of the "bricks" ³. He suggests that No. 3 "Corn-ear and Tripod" commemorates the alliance between Metapontum and Croton, *circa* B. C. 330 ; No. 5 "Trident and Caduceus", the commercial greatness of Tarentum ; No. 8 "Eagle and Pegasus", the league between Rome and Carthage against Pyrrhus ; No. 9 "Elephant and Hog", alliance between the Italian states and Pyrrhus against Rome ⁴ ; No. 4 "Anchor and Tripod", Croton's participation in the 1st Punic war ; No. 6 "Cocks and Tridents", guard at the Straits during the 1st Punic war.

1. Hill. *Hist. R. Coins*, p. 17.

2. Comparette, *op. cit.*, p. 17. See also account of Vicarello and other hoards ; Grueber, *B. M. C.*, vol. I, p. xvi, ff. ; and Momm., *op. cit.*, vol. I., p. 174 ff.

3. Comp., *op. cit.*, pp. 27-54.

4. Rather curiously Comparette inverts the generally accepted explanation of No. 9. Thus instead of making it commemorate Rome's defeat of Pyrrhus, he regards it as having been issued in direct hostility to Rome.

Haeberlin and others have already connected No. 7 "Bull" with the end of the third Samnite war.

That types of Nos. 7, 8 and 9 allude to contemporary events is quite possible but in the case of Nos. 1-6 the allusions are by no means obvious, and the explanations suggested by Comparette are strained, to say the least. But since the types are connected solely with mints of central and not southern Italy his supposed allusions of Nos. 3, 4, 5 and 6 are impossible. It may be doubted, too, whether allusions of so subtle a character really exist in any of the types of the "bricks" or aes grave. The types of the latter, like the system on which the cast coinage was based, are generally of the simplest character and can only admit of the simplest explanation. Therefore, since in only three cases can the types be considered commemorative, this aspect of the "bricks" is merely incidental.

3) *Ingots for commercial purposes.* — Comparette maintains that the stamped bricks were merely commercial ingots, entirely unconnected with the state or the mint. "Some of them", he says, "are ingots of unrefined copper... probably destined for the refineries, others prepared by the refiners to supply the large number of artisans engaged in the manufacture of the numerous articles, both useful and ornamental, then so commonly made of bronze. These ingots were, of course, the products of private enterprise; and the types they bear are to be regarded as trade marks to identify the products of a manufacturer" ¹.

But if, as the same writer suggests, the types are city arms and contain allusions to current political matters, their meaning is considerably obscured if the purpose of the "bricks" is to be whittled down to that of commercial "pig-copper". As a matter

1. Comparette *op. cit.*, p. 58.

of fact, the type-relation of the "bricks" to the aes grave completely rules out the view that the former are merely articles of commerce.

Moreover, the argument that because the metallic quality of the "bricks" varies, therefore they could not have been intended for one and the same purpose, such as coinage, loses force in the light of facts. At no period was the Roman bronze coinage uniform in its composition, and very little attention seems to have been paid to the matter. This is particularly true in the 3rd century B. C., when the methods of refining and alloying metals were far from perfect.

THE AES GRAVE

ROME

SERIES I

Although as regards fabric the aes grave is derived from the elliptical or disk-like aes rude¹ rather than from the "aes signatum", it is impossible to detect in this earlier species of currency even the rudiments of a denominational system. Hence the introduction of a full-blown monetary system, consisting of the As, as unit, and a series of fractional denominations, viz., Semis, Triens, Quadrans, Sextans and Uncia, all bearing distinctive types as well as marks of value, and approximating to a definite weight standard, indicates an extraordinary advance in Roman monetary ideas.

DATE. — It has been shown conclusively that for the introduction of the aes grave Mommsen's date (B. C. 451) is far too early.

Though somewhat rough in fabric, the Libral Asses and their fractions are by no means archaic in style. Artistically they show Greek influence; not of the finest period but of the earlier decline.

1. As these metal disks seem peculiar to Etruria, it is not improbable that the Romans derived their earliest conception of money, amongst other things, from the Etruscans.

That they were not introduced till late in the 4th century B. C. may be regarded as certain ; and modern numismatic opinion is in favour of fixing the date between B. C. 338 (Babelon and Grueber) and B. C. 335 (Haeberlin).

This conclusion rests on a single piece of evidence, namely that the ship's prow, which appears as the reverse type on all denominations, refers — or is supposed to refer — to the victory at Antium (B. C. 338), when the prows of the Antiate battle-ships were carried to Rome in triumph and affixed to the Rostra in the Forum ¹.

While admitting the possibility of this view, it is well to consider whether or not the evidence on which it rests is conclusive.

1) Allusions to contemporary events are not particularly frequent on coins of the 4th century, and in every case when they do occur, they are restricted to a single issue lasting for only a limited period. The ship's prow, however, remains as the standard reverse type on the bronze of the Republic down to B. C. 81. It is scarcely conceivable, therefore, that a single victory — and that not of overwhelming importance — should be commemorated to the exclusion of all others for a period of something like two and a half centuries.

2) More probably the "Prow" alludes, not so much to the destruction of the Antiate fleet, as to the claim on the part of Rome to the mastery of the sea. Now this is precisely what the victory at Antium did not give her. By it she gained control over the Latin coast. But the victory was won on land ; and, at the time, the Roman fleet was inconsiderable.

If, as will probably be admitted, the evidence for assigning

1. Cf. Hill. *Hist. Rom. Coins*, p. 4. ; Pliny, *N. H.*, xxxiv, 20.

the aes grave to B. C. 338-335 is unconvincing, we are led to inquire whether any other date is more plausible.

Here the following points are worth consideration.

1) The aes grave cannot certainly be placed earlier than B. C. 338 on account of its style. It may, however, be later.

2) In B. C. 311 a special naval command was created by the appointment of *Duoviri navales*, and it may be doubted whether Rome's claim to be a sea-power can be seriously entertained before this date. Here then, we suggest, is a definite motive for the "Prow" type.

3) It is probable that the issue of heavy Asses — i. e. Asses approximating to their original weight of a pound — did not continue, at the outside, for more than 40 years. Dr Haeberlin suggests a slightly longer period and assigns them to B. C. 335-286. There is, however, pretty strong evidence to show that the heavy As lasted down to B. C. 275 and quite possibly to 271 before its standard was definitely reduced, as we shall show later. If, therefore, we fix B. C. 271 as the lower date of the Libral As, it is quite reasonable to place the higher about B. C. 311.

4) On historical grounds B. C. 311 is a likely date for the introduction of a new and extensive coinage. The last phase of the second Samnite war had been reached and Rome was in the ascendant. But a serious crisis arose in 311 when the Etruscans declared war against Rome, and Rome was forced to sustain armies on two fronts simultaneously.

Monetary reforms have not infrequently been connected with military crises. As for example in B. C. 242 and 217. Thus the crisis of 311, rather than the settlement of 338-335, may be regarded as a more probable occasion for the inauguration of the aes grave.

In adopting this distinctive species of money Rome appears to have taken the lead ; although within a few years her example was followed by her neighbours in Latium, Campania, Apulia, Umbria and Etruria.

Specimens of the Roman series ("Prow" type) are to-day far commoner than those of most of the collateral coinages. The reason evidently being that the Roman coins were issued for a longer period and over a wider area than the latter.

THE ROMAN POUND.

The metrology of the aes grave has received a good deal of attention from modern numismatists, notably Dr Haeberlin, whose results are published in "Die Metrologischen Grundlagen der ältesten Mittelitalischen Münzsysteme " (*Zeit für Num.*, XXVII). His theories are perhaps more elaborate than either the coins or the conditions of the time justify. But he has amassed much valuable material in his work, "Aes Grave, das Schwerkeld Roms und Mittelitaliens", by recording the weights of a vast number of specimens ¹.

The initial difficulty arises from the fact that the coins vary so much in weight that they seldom correspond with the theoretical standards to which they are supposed to belong. This is largely due to the haphazard method of casting, and the absence of any attempt to adjust the weight of the coins after they left the mould. It is clear, therefore, that accuracy of weight was not deemed important by either the makers or users of the aes grave.

Since the method of producing these coins was at best a rough and ready one, we may naturally conclude that the

1. For a useful abridgment of Haeberlin's theories see A. W. Hands, "*Italo-Greek Coins*", pp. 89 ff.

weight-standard on which they were based was the simplest possible. It is very doubtful, therefore, whether some of the subtleties propounded by Dr Haeberlin were even thinkable to people who had but lately emerged from such barbarous conceptions of money as are implied by the use of *aes rude*.

It is generally agreed that the Libral As ("Prow" type) was issued at the weight of a Roman pound, containing 12 unciae or 288 scripula. But it is probably nearer the truth to say that it *represented*, rather than that it actually *weighed*, a pound.

We have then first to determine what was the weight of the Roman pound. Grueber¹ inclines to the more natural view that it was the Attic pound (327.45 gms.), Mommsen² considered that the coins were issued normally at a standard of about 10 ounces, while Haeberlin maintains that originally the Romans adopted the Oscan pound (272.87 gms.) but subsequently abandoned it in favour of the Attic, which he calls the "Neo-Roman".

Both Mommsen and Haeberlin rather underestimate the normal weights by basing their conclusions on averages.

The norm must certainly be looked for somewhat above the average, and is probably nearer the weight of the heaviest specimens. Therefore, in order to present as fair a view as possible, the weights given in the Corpus are those of the heaviest specimens as well as the averages computed by Haeberlin.

With regard to the coins of Rome (Series I) it will be seen that while heavy specimens frequently weigh considerably more than the Oscan pound they never quite come up to the Attic³.

1. *B. M. C.*, I, p. xxii.

2. *Hist. mon. rom.*, I, p. 206.

3. The solitary exception of the Pesaro As, which weighs 390 gms. proves nothing more than that the coin was evidently an accident on the part of the *flator*.

The view we suggest is that the Attic pound was almost certainly in force at Rome at the end of the 4th century B. C. ; and although in theory the Libral As probably represented this standard, in actual practice the coins fell somewhat below it. This modification of the Attic pound may appropriately be termed the "Roman" pound ; and, like all other Italian weight-standards, cannot be defined exactly, but for practical purposes it appears to be somewhere between 300 and 280 grammes.

SERIES II.

Towards the end of the Libral period (*circa* B. C. 275), two changes occur in the Roman series : (1) The "Prow" is turned to left, instead of to right as hitherto ; (2) The Uncia drops out of the system.

The change of type appears to have no special significance, and evidently does not denote any change of weight. But within a short time an appreciable reduction of weight is noticeable, so that the average weight of series II falls somewhat below that of series I.

Although the cast uncia henceforth disappears, its place is almost immediately taken by a struck coin. The latter was probably introduced about B. C. 271, and as the demand for this small denomination must have been pretty constant at this period, the interval between the issues of the cast and struck unciae is not likely to have been great.

This, taken in conjunction with the fact that examples of series II are considerably rarer than of series I, shows conclusively that the "Prow to left" series cannot have been introduced very long before the "Semi-libral" reduction. Probably between B. C. 275 and 271.

REDUCTIONS OF THE WEIGHT-STANDARD

Within the space of little more than half a century from the date of its introduction the weight of the As had fallen from a pound to two ounces. The bare fact is simple enough. But the difficulty is to determine when the different stages of the decline were reached, and whether the decline was gradual or in a series of sudden drops.

Pliny states explicitly, "*Librale autem pondus aeris imminutum bello Punico primo... constitutumque ut asses sextantario pondere ferirentur*"¹. If by this he implies that during the first Punic war the weight of the As dropped suddenly from a pound to two ounces, his statement is contradicted by the coins, which exhibit almost every gradation of weight between these two extremes². Varro and Verrius Flaccus support the view that the Libral As was abolished during the first Punic war. Festus, however, who apparently confuses the "sextantal" and "uncial" reductions, assigns the As of two ounces to the second Punic war³.

Modern writers agree that the process was gradual, but differ as to when its different stages were reached.

D'Ailly and others maintain that a series of reductions, which, they distinguish as "semi-libral", "triental", "quadrantal" and "sextantal"⁴, occurred at more or less regular intervals; the last being reached in B. C. 268 when the silver coinage was introduced.

1. *N. H.*, xxxiii, 13.

2. See lists of weights in Haeb., "*Aes Grave*".

3. Varro *De re rustica*, I, 10. Festus, *de Verb. sig.*, s. v. *Sextantarii*.

4. With the exception of the last, these terms have no ancient authority.

Samwer and Bahrfeldt¹ do not accept the "semi-libral" or "quadrantal" reductions, but maintain that by the time of the war against Pyrrhus (B. C. 280-275) the As had fallen to the weight of a Triens, and in B. C. 268 to that of a Sextans.

Mommsen considered that the As was reduced suddenly from 9 or 10 ounces to 6, and in B. C. 268 to 4. The "sextantal" As he places shortly after B. C. 244.

Haeberlin is of opinion that in B. C. 286 the As was reduced to half the weight of an *Oscan* pound, and in B. C. 268 to the weight of a Sextans (Attic).

These conflicting theories sufficiently justify a reconsideration of the subject. More especially as recent research enables us to approach it from a somewhat fresh point of view.

At the outset it is necessary to state clearly that unless we abandon the use of such artificial terms as "Triental", and "Quadrantal", which are no more than concessions to modern numismatic theory, and only apply superficially to the coins, there is little hope of arriving at a true solution.

As to the exact nature of the reductions of the As, and when these reductions took place, our main evidence is derived from the coins themselves.

It is well known to every collector of aes grave that specimens of the Roman series ("Prow to r." type), of approximately Libral weight, are far commoner than those of reduced weights. The so-called "Semi-libral" Asses are decidedly rare — at least ten times as rare as the Libral. Those of still more reduced weights, commonly described as "Triental" or "Quadrantal", are rare, though not quite as rare as the Semi-libral. But examples of the Triens and Quadrans of these reduced standards are almost unobtainable.

1. *Op. cit.*, p. 48.

The inference is fairly obvious. The As maintained its original, or approximately its original, weight for a fairly long period. But when the decline set in, the reduction of its weight was extremely rapid. With only the briefest transition it dropped to a half ; thereupon the As degenerated into a coin of indeterminate standard, fluctuating in practice between 4 and 2 ounces. This continued till the cast Asses were finally superseded by struck coins of definitely Sextantal weight.

The practical effect of these rapid changes on money values and the relation of coins is not difficult to imagine.

By issuing the As at half its original weight it ceased to be even an approximation to the Libra. Naturally it lost all stability and became merely a token coin. Hence its actual weight was a matter of unimportance, and we find examples of every conceivable weight between the limits of 4 and 2 ounces ; with the result that the aes grave system, as such, was reduced to a state of chaos. But perhaps it is more true to say that the As, having ceased to be an intelligible factor of the monetary system, could no longer be regarded as a unit of value.

If money values could no longer be reckoned on the basis of the As, on what then were they reckoned ? Obviously, on the standard of the Attic pound. That is to say, the pound of bronze, which from ancient times had been the Roman unit of value, continued to be so until the institution of the struck Sextantal As.

The rarity of *cast* fractions of the reduced As, i. e. Triens and Quadrans, seems to indicate that the As had lost its place in the monetary system. Struck coins, and eventually silver, were introduced on the basis, not of the degenerate As, but of the Libra or Attic pound. But these will be dealt with later.

It is, however, important to grasp this principle in order to get an intelligible view of the aes grave and its reductions.

Having outlined the general trend of the aes grave reductions, we shall next consider them in detail.

We have suggested above that the Libral As was introduced about B. C. 311, normally at the weight of a "Roman" pound, and that it maintained practically its original standard till about B. C. 271.

Our evidence for the latter date rests mainly on the fact that certain Campanian series of aes grave are closely related to the series of silver Didrachms commonly known as Romano-Campanian.¹

This relationship is so unmistakable both with regard to types and weights that not only is it practically certain that the Didrachms and Aes grave belong to the same period, but there is good reason to believe that they are complementary to one another and in effect form a single series.

Although Mommsen and others have assigned the Romano-Campanian Didrachms without very strong reasons, to B. C. 330-290, Mr Mattingly has recently shown pretty conclusively that these coins, or at any rate some of them, must have been struck during the war against Pyrrhus (B. C. 280-275).²

In support of this he points out that the frequent occurrence of the "Horse's head" — a characteristically Carthaginian type — signifies the alliance between Rome and Carthage. Several other types almost certainly contain Carthaginian allusions; and the general character of the coinage seems in keeping with this period.

This re-dating of the Romano-Campanian Didrachms leads to important results.

1. This relationship is considered more fully in the section on Campania.

2. "Romano-Campanian Coinage and the Pyrrhic War", *Num. Chron.*, 1924, p. 181 ff.

1) Since the six series of aes grave, which are related to the Romano-Campanian didrachms, are all of the full Libral standard (series C (1) and D (1) being actually somewhat heavier than the Roman) it follows that in Latium-Campania the heavy As was still current during the war against Pyrrhus. If in these districts, it must also have been in force at Rome. No appreciable reduction of weight can, therefore, have taken place till after B. C. 275.

2) The first reduction of the As must, however, have occurred before B. C. 268, for by that year, as we shall show later, there is every reason to believe that it had fallen to something between four and two ounces.

3) Roma (Series II) and Lat.-Campania (Series F) are alike in omitting the uncia. Consequently they must be placed between 275 and 268 B. C. Since, however, both series are approximately of Libral weight, they belong to the beginning of this period; probably B. C. 275-271. We may conclude, therefore, that the issue of Libral Asses came to an end in, or about, B. C. 271.

THE "SEMI-LIBRAL" REDUCTION

SERIES III

About the year B. C. 271 the As was reduced almost suddenly to approximately half its original weight.

In this connexion Dr Haeberlin's elaborate theory calls for notice. His view is that the As was reduced from a norm of 273 gms. (Oscan) to 136.5 gms., but that the fractional denominations from the Triens downwards were issued at half the Attic standard ; i. e. Triens = 54.5 gms., etc. Thus there resulted a decimal weight-relation between the denominations although the coins continued to bear duodecimal marks of value. Accord-

ing to Dr Haeberlin, this rather complicated arrangement was an attempt to strike a compromise between the coinages of Rome and Campania ¹.

The ingenuity of the theory is undeniable ; nevertheless it is open to several serious objections.

1) Specimens show so much variation in weight that it is hazardous to draw conclusions of a highly particularised nature from them. Even the averages worked out by Haeberlin scarcely support his theory ; e. g. the average weight of the Semis is actually above the norm ².

It may be doubted too, whether a reform of so intricate a nature was possible under the clumsy conditions of a cast coinage ; and even if possible, whether it would have commended itself to the Roman people.

2) So long as the coins retained their duodecimal face-values it is extremely difficult to see by what process they could be reckoned decimally.

3) The hypothesis that a change of standard occurred at the Roman mint is in itself improbable and lacks satisfactory proof. There is no question that later on in the 3rd century B. C. the Roman coinage was regulated solely by the Attic standard, and this continued in force down to the end of the Empire. To prove, therefore, that at the end of the 4th, and beginning of the 3rd century the Oscan standard was in force necessitates the production of far stronger evidence than that supplied by the illusive weights of the aes grave. But to assume that both

1. Haeb. *Metrol. Grundlagen*, pp. 104 ff. ; cf. Hill. *Hist. R. Coins*, p. 21. ; and "Roman Monetary System", *Num. Chron.*, 1918, p. 162. Haeberlin's estimate of the original weight of the As is open to question (cf. above, p. 28) ; also his date (B. C. 286) is too early for the "Semi-libral" reduction.

2. Semis, No. 17, av.wt., 72.82 gms., suggested norm, 68.22 gms.

standards were dovetailed into one system seems almost to exceed the bounds of possibility.

Haeberlin's theory is rendered still more improbable by his interpolation of the Janus-Mercurius series among the issues of Rome. This not only breaks into the sequence of types, but reverses the natural order of development by placing a light issue before a heavy one. The opposite is the invariable rule. Moreover, evidence shows that local weight-standards were everywhere superseded by the Roman. That Rome should have changed her standard to fall in with that of a dependent mint would have been to reverse her whole policy with regard to coinage.

The further one investigates the aes grave, the more impossible it becomes to lay down hard and fast principles with regard to its metrology. As often as not it appears to have none ! and to attempt to theorise too minutely on the weight reduction that occurred in B. C. 271 seems almost futile.

It may be suggested, however, that it was not occasioned by state bankruptcy or by any financial crisis. It was a perfectly natural, though clumsy development — a mere makeshift — prompted in all probability by the desire to expand Roman commerce. That is to say, so long as trade was confined to central Italy, the cumbersome aes grave sufficed as a medium of exchange, but when regular negotiations were opened with Greco-Italians, Sicilians or other peoples around the shores of the Mediterranean, Rome found it necessary to adopt a more convenient form of money, which would interchange with Greek coinages.

The failure of Pyrrhus added greatly to the prestige of Rome. In B. C. 273 Ptolemy Philadelphus made overtures for a trade alliance. In B. C. 271 friendly relations were opened with the

Mamertini and with Hiero of Syracuse, from whom Rome received corn supplies. Thus the "Semi-libral" reduction may be regarded as Rome's first attempt to bring her coinage into line with the bronze currencies of Sicily and Magna Graecia.

The struck coins, Sextans and Uncia, which appear to have been issued in connexion with the "Semi-libral" As, show a stylistic resemblance to the contemporary bronze of Bruttium, Syracuse and the Mamertini. Perhaps, too, in the production of this new coinage Rome may have employed craftsmen imported from among her newly acquired allies.

The period, B. C. 271-268, to which we assign the "Semi-libral" and further reductions of the As, is really one of transition from the monometallic cast coinage to a newer system which combined the metals, silver and bronze.

The institution of a silver currency in B. C. 268¹ was undoubtedly a momentous step in the development of the Roman monetary system, yet rather curiously it leaves us in the dark as to the particular stage of reduction reached by the As at the time. Thus numismatists have been at pains to decide whether the Asses, 10 of which were equated to a Denarius, were "Semi-libral", "Triental", "Quadrantal" or Sextantal".

In view of the principle enunciated above we can say unhesitatingly that they were neither.

To attempt to adjust values on the basis of so unstable a coin as the As became after B. C. 271 was manifestly impossible, and the only fixed standard to which appeal could be made was the Attic pound.

It seems practically certain, therefore, that the equation of a

1. Livy. *Epit.*, lib. xv. Pliny. *N. H.* xxxiii, 13. « ... quinque annis ante primum bellum Punicum. »

Denarius to 10 Asses was based on the Attic pound and not on some imaginary "Triental" or "Quadrantal" standard. We may imagine, too, that this adjustment of values was of the simplest character, and that the silver Denarius was equated to an exact number of Attic pounds of bronze.

Here two possible alternatives are presented.

1) The As, notwithstanding its reduced weight, may have still represented a Libra, so that the denarius was theoretically the equivalent of 10 pounds of bronze. Pliny was evidently of this opinion "... placuit denarium pro decem libris aeris". This, however, gives the ratio of silver to bronze as 1 : 720 ; but as it is clear that at the time of the "Sextantal" reduction (circa B. C. 242) silver was only 120 times as valuable as bronze, it is difficult to conceive that in B. C. 268 its value was so inflated. At the same time it must be remembered that previous to this Rome possessed only a bronze coinage, so that in all probability silver was rated very highly.

2) The denarius may have been tarified according to the standard that prevailed in Latium-Campania where a pound of bronze appears to have been worth 2 scruples of silver. The denarius of 4 scruples would, therefore, be worth 2 pounds of bronze ; giving a ratio of silver to bronze as 1 : 144. ¹

Mommsen is clearly right in maintaining that by B. C. 268 the As had not fallen quite as low as 2 ounces (1/6 of a pound), and it seems reasonable, further, to suggest that the Asses, which weigh between 3 and 2 ounces, were not improbably reckoned as *fifths*. That is to say, 10 of these Asses would be equal to 2 Attic pounds of bronze.

On the whole this view of the standard of the As in relation

1. See below, 'Relation of aes grave to silver currencies and Appended Note A.'

to the Denarius is found to be supported by the evidence of other coins issued between 271 and 268 B. C. These fall into two classes, (1) cast multiples of the As, and (2) smaller struck denominations.

1) The multiples of the As are the *Decussis* (10 Asses), the *Tripondius* (3 Asses) and the *Dupondius* (2 Asses). The Tripondius and Dupondius are also found in a series assigned to Capua (Campania, series F.) and of reduced weight in series of Volaterrae and Etruria *in genere* (Etr. E, F.). The Decussis is, however, peculiar to Rome.

In effect the Decusses are bronze Denarii ; but as coins of this denomination could have served no practical purpose after silver Denarii were put into circulation, it may be assumed that they were issued before B. C. 268. The general uniformity of their style suggests that their issue cannot have extended over more than a year or two at the outside. Their weights, however, vary considerably ; e.g., Kircherian, 1106.6 gms. ; Paris, 1091.5 gms. ; Collegio Romano, 1074.0 gms. ; Pesaro, 721.0 gms. ; Gnechi, 680.0 gms. ; B. M., 653.0 gms.

Of these the heaviest implies an As of rather more than 4 ounces, and the lightest an As of just over two ounces. Owing to the rarity of these pieces it is difficult to draw absolute conclusions from them, but the lighter examples, which presumably are also the latest, imply an As that may reasonably be regarded as $1/5$ of the Libra.

2) The struck coins are :

a) Sextans of about an ounce (av. wt., 26.42 gms.), and Uncia of half an ounce. (Roma, series III, nos. 23, 24.) These imply an As of which the maximum weight would be 6 ounces, i.e., "Semi-libral".

b) Triens, Quadrans, Sextans and Uncia. (Roma, Series IV,

nos. 30-33.) The Sextans and Uncia are similar in style to those of group (a), but are of about half their weight, and the two higher denominations are in proportion. Their average weights (see Corpus) imply an As of slightly under 3 ounces¹.

There is practically no doubt that the heavier struck coins (a) were issued a short time before the Decusses, and that the lighter ones (b) were issued almost immediately after them. Moreover, since the Denarius probably followed closely on the Decussis, we may conclude that the silver coins and the second group of struck bronze (b) were issued in connexion with one another.

The As, although technically 1/10 of a Denarius, had practically become a negligible factor of the monetary system, and the effective currency in B. C. 268 consisted simply of the newly introduced silver and the four denominations of struck bronze. The latter were evidently introduced to give stability to the coinage, more particularly with a view to foreign trade, as we have already suggested.

B. C. 268-242. — The only cast coins that can be assigned to the Roman mint after B. C. 268 are Asses of irregular weights (some possibly as high as 4 ounces but mostly between 3 and 2 ounces), and their fractions, Semis, Triens, and Quadrans. (See Roma, Series IV.)

Specimens of the last two denominations are extremely rare. Their issue must, therefore, have been discontinued at an early date.

The cast Asses straggle on, apparently for a period of about

1. Grueber has confused these two issues by placing them together, *B. M. C.*, vol. I, p. 20, ff. Although many of the Sextantes of group (a) fall below an ounce, there is a clearly marked division between them and the lighter Sextantes of group (b). This Grueber notes.

twenty years, concurrently with the silver and struck bronze mentioned above. At least this is Mommsen's view, which he bases on the fact that when Brundisium was made a colony in B. C. 245 its coinage was instituted on the "Triental" standard. Hence, he argues that the same standard was in force at Rome ¹.

It by no means follows, however, that the issue of these coins was continuous, throughout this period. That there were intervals of inactivity on the part of the Roman mint in the 3rd century B. C., just as there were later under the Republic and Empire, is not only a reasonable hypothesis but offers an explanation of several otherwise perplexing features both of the bronze and silver coinage.

Some cast Asses of this period weigh barely 2 ounces ; but it is improbable that the Sextantal standard was formally recognised till after B. C. 245, when the cast Asses were superseded by struck coins. This brings us down to nearly the end of the 1st Punic war — the period to which Pliny assigns the institution of the Sextantal As — and a reference to history enables us to fix the date with tolerable certainty.

The final crisis of the war was reached just before the victory of Catulus at Aegusa (10 March, B. C. 241). The fleet of 200 ships manned by 60,000 men, by which the battle was won, was provided by private subscription. But for this purpose a special issue of money must have been necessary. Thus the institution of a new bronze coinage, consisting entirely of struck pieces, may reasonably be placed some time in the previous year (B. C. 242).

1. *Op. cit.*, vol. II, p. 4. But as the coin-weights are so erratic this inference is scarcely warranted. It merely goes to prove that the standard had not dropped as low as the Sextantal at this date.

ROME

SYNOPSIS OF AES GRAVE AND EARLIER STRUCK COINS

<i>Circa B. C.</i> 311-276	"Libral" (Series I).
275-272	"Libral" (Series II).
271-269	"Semi-libral" (Series III). Sextans and Uncia (struck). Multiples of As (Decus., Tripond., Dupond.).
268	Asses, 4-2 ounces (Series IV). Denarius, Quinarius, Sestertius (silver). Triens, Quadrans, Sextans, Uncia (struck).
242	"Sextantal" As and parts (struck).

THE AES GRAVE OF CENTRAL ITALY

The cast bronze coinages issued at various city mints in central Italy, while clearly related to the Roman, are in several respects very different from it. It may be laid down as a general rule that these collateral coinages mark the gradual advance of Roman influence in Italy. That is to say, they begin under Roman auspices, their development follows Roman lines and at the will of Rome they terminate in order to give place either to purely Roman issues or to currencies half Roman and half autonomous.

On the other hand, they give indications of local character. Their types, style of execution and, in many cases, their weight-standards are non-Roman. These local idiosyncracies are naturally more strongly marked in the earlier issues.

Unfortunately our information with regard to most of the city-mints is so scanty that we do not know in what relation they stood to that of Rome, nor can we be certain in what

cities some of the mints were placed. The status of the mints evidently varied. Some were merely tolerated for a time; others received extensive privileges in the matter of coinage; and the reason for this difference of treatment is mainly to be found in the military needs of Rome during the 3rd century B. C.

Thus during the war against Pyrrhus it was of the highest importance to hold the line of territory between Rome and Capua, and extensive coinages were fostered in Latium and Campania. Luceria was the chief military outpost in Apulia, particularly during the first and second Punic wars; and as Roman expansion tended northwards Iguvium formed an impregnable military position whilst Etruria opened up the main routes on the western coast.

The main points to be considered are: (1) attribution, (2) date, and (3) weight-standards.

1) *Attribution*. — In a few cases place-names such as Velathri (Volaterrae), Tutere (Tuder), Ikuvini (Iguvium) leave no doubt as to the mintage of the coins; and abbreviations or initials as HAT (Hatria), VE (Venusia), FIR (Firmum), and L (Luceria) are tolerably certain.

The majority of the coins, however, are uninscribed and can only be assigned to districts conjecturally. Here style and fabric are our chief guides. Speaking generally, the coins of Latium and Campania are neatly cast and their style is essentially Greek. Those of Apulia are rough, the devices smudgy and in poor relief. Those of Etruria are unmistakable from their flatness and the simplicity of their types. Specimens of peculiarly barbarous workmanship belong mainly to districts such as Samnium or Vestini.

In a few instances types afford an indication of mintage, e. g., the "Gaul's head" type evidently belongs to the district of the

Senones (Sena Gallica or Ariminum.) But from most of the types no certain inferences can be drawn. Thus the trident, anchor or dolphin types are not confined, as might be imagined, to coast towns but frequently appear on coins of inland mints.

Even the grouping of coins into series is not always possible, and a number of uninscribed pieces have either to be treated as isolated specimens or else grouped together conjecturally as the compilers of the Catalogue of the Museo Kircheriano have done.

2) *Date.* — It may be safely assumed that aes grave was not issued in any of the central Italian districts until after it had been introduced at Rome. This opinion is held by practically all modern writers on the subject. It is possible, however, to determine the date-limits of most of the collateral issues rather more precisely, as we shall show when dealing with the series individually.

One of the chief determining factors for dating the coins is their weight, and here we naturally take the Roman weight-reductions as the basis of our chronology.

3) *Weight-standards.* — The coins show that the standard of the As was by no means uniform; and Haeberlin maintains that as many as six distinct systems of weight existed in central Italy. In dealing with the metrology of the aes grave, however, he inclines to look for systematic intricacies which may, after all, be merely the result of haphazard production.

A rather more natural view is that, in the earlier aes grave period, three standards of the pound were in force, which can be determined geographically.

a) In Rome and Latium the pound ranges from about 310 to 275 grammes. The normal is probably the Attic standard of 327.45 gms. but modified somewhat in actual practice. This modification we have described as the "Roman pound".

b) In the east coast district, between the Apennines and the Adriatic, i. e. Picenum and the eastern part of Umbria, the pound varied from 420 to 323 grammes, which Haeberlin identifies with the Phoenician pound of 379 gms. According to the local usage, however, its normal weight seems to have been over 400 gms.

c) In Campania (before B. C. 279) and Apulia we find a pound normally of about 341 gms. which Haeberlin terms the "Italian pound".

Whether or not these different standards are rightly traced to Phoenician and Babylonian sources scarcely affects the main issue. In effect they are merely localisms ; and when the cities of Campania, Picenum or Apulia inaugurated cast coinages under Roman influence, they naturally adopted the weight-standard to which they were accustomed.

All the cast coinages of central Italy were sooner or later dominated by the Roman standard. In cases where the local standard was in excess of the Roman, the coins begin by being heavier. But very soon the local standard either tends to conform with the Roman, as for example the "Janus-Mercurius" and "Apollo" series, or it becomes extinct, as in the case of the coinages of Hatria and Sena Gallica.

No collateral coinages appear to have been issued below the current Roman standard. For example, the various series assigned to Etruria and western Umbria do not begin till the Roman As had fallen considerably below its original weight.

Coinages that occur in two or more weights, as those of Tuder, Venusia and Luceria, follow the reductions of the Roman As.

LATIUM AND CAMPANIA

SYNOPSIS OF COINS OF LATIUM AND CAMPANIA

DATE	LATIUM	CAMPANIA	
<i>Circa</i> B. C. 306-280	Coins of Rome current A (1), A (2) "Roma-Bull" (B. C. 290).	B (1) "Janus-Mercurius", C (1) "Apollo".	Didrs. Drs. and small bronze, (Cl. I.)
279-271		B (2), C (2). D (1), (2), "Roma in Phryg. helmet". E, "Roma in Cor. helm." F, "Wheel" on rev. LATIUM-CAMPANIA. Unclassified coins (Nos. 95-118).	Didrs. Drs. and small bronze. (Cl. II.)
271-269	Cast coins of Roman type ; reduced weight. "Semi-libral". Struck bronze, Nos. 119-123.		"Quadrigatus" Didrs. and Drs. (Cl. III.)
268-242	Cast Asses and Semisses (Roman type). Quadrantes, reduced weight.		Id.

LATIUM

Latium, the district geographically and racially nearest to Rome, probably adopted aes grave very soon after its introduction at the capital. The coins of the Roman mint evidently

circulated freely throughout Latium, hence there was small need for local issues and the local mints, such as there were, seem for the most part to have issued coins of the Roman type. The only distinctive issues that can be assigned to Latium with any degree of probability are the remarkable Asses, A (1) and (2), with obv. head of Roma facing ; and rev. bull, above which is either the letter $\downarrow$ or a caduceus. A bull, similarly executed, occurs on the contemporary bronze "brick", No. 7. As it is generally agreed that this type alludes to the conclusion of the 3rd Samnite war (B. C. 290), the date of the coins may be fixed accordingly.

The attribution of these Asses presents some difficulty ; and the question turns mainly on the meaning of the letter $\downarrow$ on the reverse of A (1). Riccio interprets it as the mint-mark of Luce-ria, to which town he assigns the coins. Haeberlin regards it as a mark of value (=libra) and assigns the coins to Rome. Neither view, however, is supported by evidence. The fact that no examples of A (1) have been found in Apulia weakens the case for Luceria ; and the letter $\downarrow$ as a mark of value is unknown on coins of the Roman mint, where the As or unit is invariably denoted by I. Moreover, Rome had her distinctive coins of the "Prow" type, and it is extremely unlikely that she issued any coins other than these.

Grueber inclines to Riccio's view, but offers the suggestion that $\downarrow$ may stand for Lavinium in Latium. Although this is not impossible, the suggestion has no evidence either for or against.

No writers seem to have connected the *caduceus* on the reverse of A (2) with any particular mint.

Our reasons for assigning these Asses to Latium, without attempting to determine the particular mint-city, are as follows :

1) The style of these coins corresponds with that of other coins issued south of Rome rather than in Apulia.

2) The caduceus occurs on other aes grave of this district.

3) The word ROMA probably indicates some mint not far distant from the city.

4) The weight corresponds with the Roman pound which was in force throughout Latium ; whereas in B. C. 290 Apulia and Campania were still using the heavy "Italian" pound of 341 grammes.

No smaller denominations are known in connexion with these "Commemorative" Asses.

CAMPANIA.

Circa B. C. 306-280.

The earliest aes grave issued in Campania consists of two series, the "Janus-Mercurius" B (1) and the "Apollo" C (1). Both are based on the non-Roman or heavy pound, computed by Haeberlin at normally 341 grammes, although actually it may have been rather heavier. Evidently, therefore, they were issued before the Campanian weight was adjusted to the Roman standard.

We cannot, therefore, agree with Haeberlin in assigning the "Janus-Mercurius" series to Rome. Not only is the weight of the coins opposed to this view, but the type of the young Janus is essentially non-Roman and becomes identified with Campania, a few years later, in the "Quadrigratus" Didrachms.

The "Apollo" series, C (1), is related to the Romano-Campanian didrachms (Cl. 1) by its types, *Apollo* and *Horse's head*. The latter is characteristically Punic and probably refers to

an alliance between Rome and Carthage. So too the *Pegasus* type (Semis, No. 44), since we are told the "flying horse" was commonly used as the figurehead of the Punic war-ships. The compact between Rome and Carthage was probably that of B. C. 306 (Livy, IX, 43.) which gives the earliest date for the heavy "Apollo" series.

It is possible that the As with "*Hercules-Griffon*" types (no. 96 a) should, as Haeberlin suggests, be included among the Campanian issues of this date. This coin is also described under Luceria since its obverse type is undoubtedly Lucerian in character. In support of its attribution to Campania it may be pointed out that the obverse type, *head of Hercules*, corresponds with Didrachm, Bab. I., p. 13, no. 8, with which no other Campanian series of aes grave seems to be connected. It has yet to be proved, however, that the issue of didrachms, inscribed ROMA or ROMANO, was confined to Latium and Campania.

It is probable that the Campanian series of aes grave were issued in connexion with Didrachms, Drachms and small bronze coins (*Litrae*, etc.) although the two coinages are different in character. The relation between the two classes of coins is considered in detail later. (See "Aes Grave in relation to silver currencies.")

Both the "Janus-Mercurius" and the "Apollo" series were reissued in conformity with the Roman weight-standard; the former being differentiated by the symbol, *Ɔ* (2), which is also found on Romano-Campanian silver and bronze (Cl. II.); while the "Apollo" C (2), except for its weight, remained unchanged.

Haeberlin's attempt to distinguish the heavy from the light "Apollo" series cannot, however, be considered altogether satisfactory; and it seems more in accordance with the coins to

regard them as a single series that was issued originally at the heavy, or local, weight and gradually became assimilated to the prevailing currency standard, namely the Roman.

This levelling of the weight-standard, by which the aes grave of Campania was brought into line with that of Rome and Latium, cannot be dated certainly, but it must have occurred before B. C. 279. Possibly the war with Pyrrhus was its occasion. At the same time we find a corresponding reduction in the weight of the Romano-Campanian didrachms; and it is impossible to doubt that the change in the one series was directly connected with the change in the other.

Circa B. C. 279-271.

Haeberlin groups the aes grave of Latium and Campania together, but we suggest that the coins described in this section belong to Campania rather than to Latium. The Roman aes grave must have circulated over a considerably wider area than the Capital and its immediate neighbourhood, and Latium is naturally the district in which it would have been current. Therefore the inducement to issue local coinages would have been less strong in Latium than in the more distant Campania. This view is certainly supported by the types and general character of the coins.

The following six series were probably issued in Campania during the war against Pyrrhus :

B (2). "Janus-Mercurius" with falx.

C (2). "Apollo" — (light weight).

D (1). Roma in Phrygian helmet (Obv. and rev.).

D (2). Similar, but with a club on all pieces.

E Roma in Corinthian helmet. Two-handled vase.

F Roma as on D (1). Wheel.

General characteristics.

The six series are of the Roman weight-standard.

Certain types or symbols in each series correspond with those found on the Romano-Campanian didrachms and small bronze. (Cl. II.)

The style is unusually good for aes grave.

Many writers have attempted to assign the coins to particular mints. But owing to the paucity of our evidence, we can hardly hope to determine more than the district to which they belong.

D (1) and D (2) have been assigned by Mommsen to Tibur or Praeneste, and by Garrucci to Aurunca. But that they belong almost certainly to Campania is shown by their general similarity to both the "Janus-Mercurius" and "Apollo" series, e. g. :

1) The same types appear on obverse and reverse. (Cf. Apollo series.)

2) The following types, *Thunderbolt* (Triens), *Open hand* (Quadrans), *Scallop-shell* (Sextans), *Knuckle-bone* (Uncia), and *Acorn* (Semuncia) occur on corresponding denominations of "Janus-Mercurius".

3) D (2) like "Janus-Mercurius" B (2), has an added symbol which is found also on the Romano-Campanian silver.

The striking head of Roma wearing Phrygian helmet connects D (1), D (2) and F unmistakably, with the didrachms (*B. M. C.* II, p. 27 ; Bab., I, p. 12, no. 7).

E, which is by far the rarest of the four series, can probably be assigned to Cales. The head of Roma or Minerva wearing Corinthian helmet is found on autonomous bronze of Aquinum, Cales, Suessa, Teanum, etc., also on small bronze of Romano-Campania (Bab. I, p. 11, no. 5).

F. "The wheel" series has been assigned by Head to Alba Fucentis (*Hist. Num.*) and by Garrucci to Arpinum. But Haeberlin, who explains the reverse type as an allusion to the completion of the Via Appia between Rome and Capua (B. C. 312) attributes the series to Capua about this date. The attribution to Capua is not unlikely as the series pretty certainly belongs to Campania on account of the similarity between the obverse type of the As and D (1), D (2). But the soundness of this explanation of the "wheel" type is open to question. "Wheel" types of various designs occur elsewhere on the aes grave but notably on eight entire series of Etruria. Allusions to road making can scarcely be offered in explanation of all these series, therefore there seems no reason for attaching it to this one in particular. To people who habitually used chariots the wheel naturally suggested itself as a suitable coin-type, just as did spear-heads, scallop-shells, corn-grains, wine-jars and other every-day objects.

A more serious objection is that the date, B. C. 312, is much too early, as the series cannot have been issued before the war against Pyrrhus. (B. C. 279.) Reasons: (1) The obverse type of the three highest denominations corresponds with that of the later didrachms (Bab., I, p. 12, no. 7); (2) The series includes multiples of the As, i. e., Tripondius and Dupondius; (3) It omits the uncia.

Multiples of the As are among the later developments of the aes grave. At Rome multiples were not introduced till about the time of the "Semi-libral" reduction (B. C. 271-268), and in Etruria about the same date. This Campanian series with the "wheel" type is the only one in which multiples are found of the full Libral weight, therefore it seems probable that it belongs to the end of the Libral period.

The Uncia was discontinued at the Roman mint at the time the "Prow to left" type was introduced, which cannot have been very long before the "Semi-Libral" reduction¹; and it may be assumed that it was discontinued in Campania about the same time.

Therefore, taking these two points together, we may conclude that the issue of series F dates between 276 and 272 B. C.

UNGROUPED COINS OF LATIUM-CAMPANIA

Corpus, nos. 95-118.

Haeberlin assigns to Latium-Campania a number of pieces of all denominations, which so far have not been satisfactorily grouped into series². His attribution in several cases is doubtful; and we have assigned certain coins to Apulia instead of to Latium-Campania. The reasons for so doing are given in the note on Apulia.

These ungrouped coins belong to the period B. C. 289-271 as they are all of the Roman (Libral) standard.

About the year B. C. 271 the distinctive cast coinages of Campania came to an end. The Libral series, B to F, were never reissued at semi-libral or still more reduced standards, such as we find at Luceria, Venusia or Tuder, and the only cast coins issued in Latium and Campania after the "Semi-libral" reduction of B. C. 271 are *asses*, *semisses* and *trientes* of the "Prow to left" type, indistinguishable from those of the Roman mint except for their roughness of fabric. These probably lasted down to the 1st Punic war.

1. See above p. 28.

2. Attempts to group these coins will be found in the catalogue of the Mus. Kirch., and Garrucci.

Contemporary with the Roman "Semi-libral" series we find in Latium and Campania a remarkable issue of struck bronze, consisting of *Triens*, *Quadrans*, *Sextans*, *Uncia* and *Semuncia*, or as they are sometimes described, pieces of 4, 3, 2 *Libellae*, the *Libella* and *half-libella* (nos 119-123). At Rome struck *Sextantes* and *Unciae* were introduced about the same time.

With the exception of the *Quadrans*, which passed through several stages of reduction until the time of the 2nd Punic war, the struck series of Latium-Campania appears to have been discontinued when Rome issued the *Triens*, *Quadrans*, *Sextans* and *Uncia* in connexion with her silver coinage. This happened about B. C. 268; and the policy of Rome henceforth was to substitute her coinage, i. e. her silver and struck bronze for local issues.

The small bronze coins assigned by Haeberlin to Rome, and described by him as *Semunciae* and *Quartunciae*, are more probably *Sextantes* and *Unciae* struck in Latium-Campania (see *Corpus*, no. 24, n.). These coins bear Roman types but are without marks of value, which seems to denote that they are Roman money designed for circulation outside the Capital. Their weights indicate a "sextantal" unit; the date of their issue is, therefore, between 242 and 229 B. C.

THE AES GRAVE IN RELATION TO SILVER CURRENCIES

In Latium and Campania we find an extensive coinage of aes grave circulating side by side with a system of silver didrachms and drachms, and bronze litrae. In origin and general appearance the two coinages are utterly distinct, yet both were issued under Roman authority, and possibly the same mints were employed in their production.

It is important, therefore, to consider the relation they bear to one another.

(a). *Relation of type and weight.*

The Romano-Campanian didrachms fall into two classes according to their weight-standard. Their type-relation to the Campanian aes grave is as follows.

<i>Didrachms.</i>	<i>Connecting types.</i>	<i>Aes Grave.</i>
Class. I. (Norm. wt., 7.45 gms. = 115 grs.)		(Heavy standard)
1) Head of Mars, bearded. <i>℞</i> . Horse's head, corn-ear. (Bab. vol. I, p. 10, No. 4.)	HORSE'S HEAD.	Triens, C (1), No. 45.
2) Head of Apollo 1. <i>℞</i> . Prancing horse r., star. (Bab. 6.)	APOLLO. HORSE, STAR.	As, C (1), No. 43. (As, Luceria No. 132)
3) Head of Hercules. <i>℞</i> . Wolf and Twins. (Bab. 8.)	HERCULES.	(As, Luceria No. 124)
Class II. (Norm. wt., 6.60 gms. = 102 grs.)		(Roman standard)
4) Head of Roma in Phryg. helm.	ROMA (Phryg. helm.)	As, D (1), No. 62. As, D (2), No. 70. As, F, No. 86.
<i>℞</i> . Victory. (Bab. 7.)		
5) Head of Apollo r.	APOLLO.	As, C (2), No.
<i>℞</i> . Prancing horse l. (Bab. 37.)	HORSE l.	Triens, F, No. 88.
6) Head of young Mars.	MARS.	Semis, B (1) No. 37. Semis, B (2), No. 50. Semis, D (1), No. 63. B (2), (throughout)
<i>℞</i> . Horse's head ; falx. (Bab. 34.)	FALX (symbol)	
7) Head of young Mars ; Club.	MARS and CLUB.	Semis, D (2), No. 71.
<i>℞</i> . Prancing horse ; Club. (Bab. 32.)	CLUB (symbol)	D (2) (throughout)

The difference of weight-standard indicates almost certainly that the two groups of Didrachms, and the series of aes grave corresponding with them, belong to different periods. Further, in support of this, Didr. No. 1, which according to Mommsen,

Head, Babelon and Grueber is the earliest of the series, exhibits a boldness of style that proclaims it to be decidedly earlier than any of the Didrachms of class II. So that although the *horse's head* type, which doubtless refers to a Romano-Carthaginian alliance¹, occurs on No. 1 (class I) and also on No. 6 (class. II) it is very improbable, in view of the differences of weight and style, that both classes of Didrachms belong to so brief a period as the war with Pyrrhus.

In the period to which the coins may be reasonably assigned Livy records two alliances between Carthage and Rome, namely in B. C. 306 (Livy, IX, 43) and B. C. 279 (Epit. XIII), and the conclusion we suggest is that the Didrachms of class I begin shortly after B. C. 306, while those of class II belong to the time of the war with Pyrrhus (B. C. 279-275). The related series of aes grave will, therefore, be similarly dated².

Some significance seems, moreover, to attach to the fact that on Didrachms of class I the legend appears as ROMANO and on those of class II as ROMA (with the exception of No. 4). The form ROMA possibly denotes a more complete domination than the genitive ROMANO(M); that is to say, Roman rule over

1. It has been suggested that the *horse's head* may be an allusion to the Roman knights (cf. Grueber II, p. 121). This connexion is purely conjectural, whereas the *horse's head*, as a coin-type, is unquestionably Punic.

2. The types of Didr. No. 1 (Obv. Mars bearded; and rev. symbol, corn-ear) are reminiscent of the Leukippus coins of Metapontum. We might, therefore, expect to find a reference to some sort of alliance between Rome and Metapontum as well as Carthage. Of the Carthaginian alliance at the end of the 4th century we have Livy's record but with regard to Metapontum we are left in ignorance. It may not, however, be wholly without significance that in B. C. 303 the Metapontines broke from their traditional allies, the Tarentines, when the latter issued an invitation to Cleonymus of Sparta (Diod. xx, 104). The reason for the breach is not stated, but the suggestion is at any rate plausible that at this time Metapontum was, or desired to be, on friendly terms with Rome.

Campania was less firmly established in B. C. 306 than in B. C. 279.

Didrachm No. 4 may be, as Grueber suggests, a transitional coin, connected by its legend with class II. It was struck perhaps at the very beginning of the war with Pyrrhus.

(b). *Relation in currency.*

The question naturally arises, how did the cast coins exchange with the silver didrachms ?

It is safe to assume that they *did* exchange, since anything so anomalous as two unrelated currencies in the same district is inconceivable. We may be sure too, that their exchange was adjusted on the simplest possible basis. Anything involving mathematical subtleties would have been unintelligible to the Roman of the 3rd century B. C. ; and if a true solution is to be reached we must abandon abstruse calculations and follow the simple, if somewhat rough and ready, lines on which the coinages of Central Italy developed.

I. *The DIDRACHM and the AS.* — The purpose of the reduction in the weight of the Campanian aes grave (*Janus-Mercurius* and *Apollo* series) and also of the Didrachms was obviously to bring the Campanian coinages into direct relation with the Roman¹. This can only mean one thing, namely that the Didrachm was tarified at a definite number of Libral Asses. The question is, how many ?

According to Mr. Grueber the number was six. "This new Campanian didrachm which weighed 6 scruples, was now brought into relation with the aes grave, so that one scruple of silver was equal to the Libral As, thus giving a ratio of silver to bronze of 1 to 250, on the computation of the Attic pound²."

1. See above, p. 48.

2. Grueber, *B. M. C.* vol. II, p. 117. We do not accept Grueber's date for the didrachms.

The latter part of the statement is simply a miscalculation, for as the scruple was $1/288$ of an Attic pound the ratio of silver to bronze would, of course, be 1 to 288. More important, however, is the assumption that a scruple of silver was equivalent to a Libral As. This seems very much to overrate the value of silver. In B. C. 279 no doubt silver was scarce, but it is difficult to believe that a silver Didrachm was actually worth as many as 6 Libral Asses. On the other hand, our evidence, such as it is, indicates pretty clearly that the Libral As was worth 2 scruples of silver; in other words, the Campanian Didrachm = 3 Asses. Cf. Hill, *Hist. Rom. Coins*, p. 5.

Any attempt to determine the relative values of silver and bronze in the 3rd century B. C. depends largely on conjecture and the balancing of probabilities. Conclusive evidence, at any rate during the first half of the century, does not exist. One fact, however, is certain, namely that silver shows a constant tendency to depreciate relatively to bronze; which is, moreover, perfectly natural.

It is not until the Roman denarius was equated to 10 "Sextantal" Asses that we find an adjustment that leaves no room for doubt as to the relative values of the metals in currency. These struck Asses of 2 ounces (Attic), which replaced the cast Asses of irregular weights, were most probably introduced, as we have already shown, about B. C. 242 (cf. Pliny).

In B. C. 242 the values were as follows :

Sextantal As = 48 scruples (i. e. $1/6$ of 288).

10 Sextantal Asses = 480 scr.

Denarius = 4 scr.

Therefore $480 \div 4 = 120$,

i. e., value of silver to bronze, as 1 to 120.

How the metals stood relatively to one another before this

date, and what were the steps that led up to this adjustment, can best be determined by taking the "Sextantal reform" as our basis and by working backwards from it.

In B. C. 268, when the Denarius was introduced, the As does not seem to have fallen quite as low as a Sextans — this is an important point — but was issued at a somewhat indeterminate standard between 3 and 2 ounces. Since, therefore, the As, as a coin, had ceased to be an intelligible factor of the currency, it follows that bronze must have been reckoned according to the only existing standard, namely the As Libralis or Attic pound. So that if the reduced Asses of indeterminate standard are not sixths of the Libra it seems reasonable to suggest that they represented *fifths*. That is to say, 10 reduced Asses of B. C. 268 would represent the value of 2 earlier Asses of full Libral weight ¹.

The Denarius in B. C. 268 therefore = 10 reduced Asses or 2 Libral Asses.

Thus :

Libral As = 288 scruples.

10 reduced Asses = 2 Libral = 576 scr.

Denarius = 4 scr.

Therefore : $576 \div 4 = 144$,

i. e., value of silver to bronze, as 1 to 144.

About the time that the Denarius was introduced or possibly just before it, a new type of didrachm, commonly known as the "Quadrigatus", was issued in Campania. This coin circulated along with the Denarius and was evidently related to it; the normal weight of the "Quadrigatus" didrachm being 6 scruples and that of the Denarius, 4. So that if the Denarius

1. See Appended note A.

was worth 2 Libral Asses the "Quadrigatus" would have been worth 3.

If then the "Quadrigatus" of B. C. 268 was equal to the value of 3 Libral Asses — and no other equation seems possible — there is good reason to suppose that the light Didrachms of 279, which are of exactly the same weight as the "Quadrigati" were similarly tarified. That the light didrachm was worth 6 Asses is, therefore, inconceivable.

Or taking the relative values of the metals ; it is by no means impossible that between B. C. 268 and B. C. 242 silver depreciated to the extent indicated by the numbers, 144 and 120, since at the beginning of the 2nd Punic war its value in relation to bronze had fallen to 1 to 100, or even less. But that only a decade earlier i. e., in B. C. 277, it stood as high as 288 is scarcely credible.

II. *The DIDRACHM and the LITRA*. — Although the small bronze coins, generally termed Litrae¹ and half-litrae, were pretty certainly issued in connexion with the Didrachms, evidence is lacking as to the number of Litrae to which a Didrachm was equivalent. To regard the Litrae merely as *token money* (cf. Grueber) is no real solution, and only implies that they were not rated according to their intrinsic value. If they belong to the system of which the highest factor was the Didrachm, there must have been some kind of denominational relation between them.

The weights of these small coins are so variable that no conclusions based on the relative values of silver and bronze are possible². If, however, they were token money little attention could have been paid to their actual weight. But as the Litra

1. Incidentally it may be mentioned that there is no authority for designating these small coins "Litrae". We merely use the term for want of a better.

2. Mr. Grueber (*B. M. C.* II, p. 117), gives the normal weight of the Litra, issued

is considerably lighter than an Uncia, it probably passed in currency at a lower value.

The most reasonable suggestion seems to be that the Litra was a simple fraction of the Uncia, probably a Semuncia. That is to say, assuming the Didrachm to be worth 3 Libral Asses it would also be worth 72 Litrae.

This solution may appear somewhat obvious. But, as we have said, the relative values of coins current in Central Italy must have been arranged on a very simple basis. At the same time, it offers a reasonable explanation of a somewhat puzzling feature in the Campanian coinage, namely that, according to the traditional arrangement of the *B. M. Cat.* and other works, we find no intermediate values between the silver Drachm and the bronze Litra. From a practical point of view this gap is very inconvenient. But if the As was directly related to the silver coins and the Litra and half-litra tailed off below the Uncia, the gap is filled with 6 denominations of aes, and we have not only an intelligible monetary system, but one which for completeness had no rival in Central or Southern Italy.

The following tabulation of the Campanian coinage is suggested.

in conjunction with the heavier Campanian Didrachms, as 120 grs. (7.8 gms.) ; but as the specimens in the *B. M.* range from 188 to 123 grs., it is difficult to see how he arrives at this conclusion. Specimens of the Litra occasionally reach 200 grs.

DENOMINATION	NUMBER EQUAL TO Didrachm.	EQUIVALENT IN scruples $\mathcal{R}$.	EQUIVALENT IN scruples $\mathcal{E}$
Didrachm.	1	6	864
Drachm.	2	3	432
As.	3	2	288
Semis.	6	1	144
Triens.	9		96
Quadrans.	12		72
Sextans.	18		48
Uncia.	36		24
Litra (semunc.).	72		12
1/2 Lit. (quartunc.).	144		6

APULIA

Luceria and Venusia are the only Apulian mints to which aes grave can be assigned with certainty. There remain, however, a considerable number of examples of aes grave, which, on account of their style, probably belong to Apulia, but whose places of mintage cannot be determined.

The coinages of Luceria and Venusia are, therefore, our chief sources of evidence with regard to the Apulian coinage as a whole ; and it is on this evidence that questions of date and the attribution of uninscribed coins must be decided.

Luceria, both from a political and military point of view, was the most important position in Apulia ; and its possession had long been one of the main objectives of Rome. In B. C. 314, after suffering severe punishment at the hands of the Romans, Luceria was colonised by 2500 Roman citizens. (Vell. Pat. i. 14.) Venusia, after somewhat similar treatment, was colonised in B. C. 292. During the 3rd Samnite war (B. C. 298-290), and also in the war against Pyrrhus (B. C. 280-275), Luceria and Venusia formed important Roman outposts against the aggressions of

Tarentum. It was probably during the time of the Samnite war that the mints for aes grave were established in these two cities. The earliest series of Luceria may be dated about B. C. 300, and that of Venusia about B. C. 292.

The earliest Apulian issues are heavier than the contemporary Roman, though not as heavy as the coins of Picenum. The standard of the pound current in Apulia and Campania is computed at 341 grammes ; but in the latter district, as we have shown, the heavy local pound was reduced to the Roman standard about B. C. 279. It is reasonable, therefore, to conclude that the Apulian standard was brought into line with the Roman much about the same time. This gives as the limit of the earliest Apulian period, during the currency of the heavy pieces, *circa* B. C. 300-279.

From about B. C. 279 the Apulian coins conform with the Roman as regards weight, and thenceforth pass through the various stages of reduction, commonly known as "semi-libral", "triental", etc., until the aes grave is abandoned in favour of struck bronze coins.

SYNOPSIS OF THE AES GRAVE OF APULIA

<i>Circa</i> B. C. 300-279	PERIOD I (Heavy or local weight). Luceria (series I). Nos. 132, 133, with magistrates' names, L. PVLIO ; C. MODIOI (<i>circa</i> B. C. 280). Venusia (292), (series I) and coins of doubtful attribution. Apulia in genere, Nos. 171-174.
279-271	PERIOD II (Roman "Libral" standard). Luceria, No. 134 (Attribution uncertain). Nos. 135-136, with magistrate's names, L. SEXTI ; SEP. BABI. Apulia in genere, Nos. 175-179.

271-268	PERIOD III ("Semi-libral"). Venusia (series II). Asculum (?), Nos. 164, 165.
268-250 (?)	PERIOD IV (Further reductions). Luceria (series II). (Series III). Roman types. Struck bronze. Nos. 146-152. Venusia, struck bronze. Nos. 160-163. Asculum, Nos. 166-170.

LUCERIA

In period I, a complete series, — As to Semuncia — is assigned to Luceria since the types throughout correspond with those on coins issued at a later date bearing the mint-mark, $\downarrow$; also, about B. C. 280, two remarkable Asses with magistrates' names L. PVLIO and C. MODIO.

During the transition period, B. C. 279-271, two types of As were probably issued at this mint. (a.) No. 131, "Hercules-griffon" while not indisputably of Lucerian mintage, certainly appears to be Apulian rather than Campanian (cf. Haeberlin's view). The head of Hercules occurs on Asses of Luceria issued both before and after this coin (see nos. 124, 137), and also on autonomous bronze of Asculum and Herdonea.

(b.) Nos. 135-136 with magistrate's names, L. SEXTI and SEP. BABI. These Asses are of the Roman and not the Apulian weight standard; the date of their issue may, therefore, be placed between B. C. 279 and 271.

It is uncertain whether Luceria issued aes grave between B. C.

271 and 268 as no distinctive issues of "semi-libral" weight are known.

Series II and III were probably issued simultaneously about B. C. 268 as their weight corresponds with that of the coinage at Rome at this date. Series III, is sometimes described as "Romano-Lucerian". In type the coins are similar to those of Rome, and are only distinguishable by the letter $\downarrow$ which now became the regular mint-mark on the Lucerian coinage.

The importance of the Lucerian mint lasted down to the end of the 2nd Punic war; and during the period B. C. 260-201 it appears to have been constituted on a two-fold basis, i. e., as auxiliary to the Roman mint and as a quasi autonomous mint. In the former capacity it struck silver and bronze of Roman types, distinguished by the mint-mark $\downarrow$; at the same time we find a local bronze series, inscribed, LOVCERI, of the following types and denominations:

Quincunx. Head of Minerva, OOOOO. Wheel.

Quatrunx. Head of Hercules, OOOO. Quiver, bow, club.

Teruncius. Head of Neptune, OOO. Dolphin and trident.

Biunx. Head of Juno, OO. Cockle-shell.

Uncia. Head of Apollo, O. Toad.

Semuncia. Heads of Dioscuri. Two horses.

Ib. Head of Diana. Crescent.

VENUSIA

The coinage of Venusia, compared with that of Luceria, appears insignificant. Only two incomplete series can unquestionably be assigned to this mint, i. e., series I (B. C. 292-276) and series II (B. C. 275-268). The types which are the same in

both series, are uninteresting and their style of execution crude. The later series is distinguished by the mint-mark ∇ .

A number of Apulian aes grave have been assigned to Venusia. A list of these will be found on p. 110. n.

The types, boar's head and owl, occur on a late semuncia of Venusia, and probably for this reason As No. 171, Quatrunx No. 173, Teruncius No. 177, and Biunx No. 174, have been assigned to this mint. Both types, however, occur elsewhere on autonomous bronze of Apulia; i. e., "boar's head" on coins of Arpi, Asculum and Salapia; and "owl" on coins of Teate, Rubi, Azetium and Butuntum.

While the attribution of these coins to Venusia appears questionable, there seems little doubt that they belong to Apulia on account of their weight and style.

APULIA IN GENERE

The 10 coins of various denominations placed together under this heading are assigned to Apulia rather than to Latium-Campania or Etruria (Haeberlin's view) for the following reasons.

1) In style the coins are coarse, the designs generally blurred and the types are of the simplest character. This seems specially characteristic of Apulian issues and contrasts very strongly with the finer style and clear relief generally noticed in coins of Latium or Campania.

2) The weight of nos. 171-174 is above the Roman standard and approximates to that of the heavy pound current in the districts of Apulia and Campania before the local weight-standard had given place to the Roman. As the style is conclusive against their Campanian mintage, practically the only alternative is to assign them to Apulia.

3) Many of the types occur also on autonomous bronze of Apulian mints ; e. g. :

Boar's head. Nos. 171, 173, 174, 177, 178. Cf. Arpi, Asculum, Salapia.

Spear-head. No. 171. Cf. Arpi, Asculum.

Wheel. No. 172. Cf. Luceria.

Star. No. 179. Cf. Luceria.

Owl. No. 174. Cf. Teate, Rubi, Azetium, Butuntum.

Dolphin. Nos. 175, 176. Cf. Azetium, Luceria, Salapia.

Grapes. No. 179 and 179 a. Cf. Arpi.

PICENUM

In the district of Picenum aes grave was issued at Hatria, Firmum, Ancona and possibly Asculum, to which may conveniently be added the neighbouring mint of Vestini, to the south of Hatria.

The inscriptions, HAT, Δ 12, and VES leave no doubt as to mintage. The only uncertainty is with regard to A which is held to stand for Asculum. Haeberlin, however, assigns the coins to Asculum in Apulia, which seems on the whole more probable.

The coins of Picenum cannot be earlier than B. C. 289. In style they are rough and boldly executed, but are chiefly remarkable for their weight. In the district between the Apennines and the Adriatic the heavy pound of about 400 grammes was in force, and it is on the basis of this pound that the coins of Hatria and the Vestini were issued. But since the coins show no tendency to approximate to the Roman standard we may conclude that their issue came to an end at an early date, probably before B. C. 275.

Hatria, known also as Adria, was colonised by the Romans in B. C. 289, at which date its coinage probably begins. Hatria is the only mint of this group of which a complete series of coins from As to Semuncia is known.

The unique As, with obv. *Triskelis* and rev. *Trident*, in the Museo Archeologico, Florence, may probably be assigned to Ancona. Its weight corresponds with the Hatrian. Its obverse type perhaps refers to the foundation of Ancona by exiles from Syracuse (B. C. 380), and its reverse type is certainly appropriate to a sea-port town. The date at which Ancona fell into the hands of Rome is not recorded but it may be presumed that it was about the time of the colonisation of Hatria.

Firmum was not colonised until B. C. 264 twenty-five years later than Hatria (Vell. Pat. i, 14). It is natural, therefore, to assign its coinage to about this date. Here two points call for notice.

1) There must have been an interval of at least ten years during which no aes grave was issued in Picenum, and it is not altogether easy to discover a *raison d'être* for this isolated coinage, which comprises only two denominations.

2) The coins are unusually heavy for the period, and imply a libral unit. Thus, both in style and weight the coins of Firmum suggest an earlier period than B. C. 264.

Two alternative explanations may be offered :

Either that the coins were actually issued some ten years before Firmum was made a colony; or, that the Roman weight-standard was not in force in Picenum so that, even as late as B. C. 264, a local weight might have been adopted.

We first hear of an alliance between Vestini and Rome in B. C. 301 (Livy, x, 3). The coinage of Vestini, however, does not begin till some years later ; probably about the same time as

the Hatrian, as both coinages adopt the same weight-standard. The only known denominations issued at this mint are, *Biunx*, *Uncia* and *Semuncia*.

UMBRIA

Umbria is divided geographically and ethnically by the Apennines into two districts, Eastern and Western. The early coinages of these two districts bear but little relation to one another; but, both in weight, type and general style, the coinage of eastern Umbria resembles that of Hatria, Vestini and other mints on the Adriatic coast, while the coinage of western Umbria has many features in common with the Etruscan.

Eastern Umbria is represented by a single series of *aes grave*, bearing as the obverse type on all denominations, the head of a warrior, with shaggy hair and moustache, and wearing a massive collar or torque. The head is undoubtedly that of a Gaul and recalls the Gallic origin of the Senones, who settled on the coast of Umbria between the river Aesis, five miles north of Ancona, and the Utus.

This series is commonly assigned to Ariminum, which was colonised by Rome in B. C. 268 (Livy Ep. xv; Eutrop. ii, 16; Vell. Pat. i, 14). But here a difficulty arises from the weight and general style of the coins, both of which indicate a considerably earlier date of issue. In fabric and general style, the coins resemble those of Hatria; and their weight, though slightly below the Hatrian, is apparently of the same normal standard. It is scarcely possible to doubt, therefore, that both coinages were issued at about the same time. This gives a choice of views, either, that the "Gaul's head" series was issued auto-

nomously at Ariminum, nearly twenty years before it fell into Roman hands ; or, that these coins, generally assigned to Ariminum, belong to some other mint in the territory of the Senones.

The former is not impossible ; but, so far as evidence can be gained from other issues of aes grave, such a coinage would be quite exceptional. A far more plausible view is that the coins were issued at Sena Gallica (a few miles south of Ariminum) which became a Roman colony in B. C. 283, or according to some writers, B. C. 289. Either date suits the style and weight of the coins, and the colony at Sena gives a clear reason for the existence of aes grave in Umbria within a few years of its introduction at Hatria.

Western Umbria is represented by two mints, Tuder and Iguvium, the attributions to which are certain as the coins are inscribed either 𐌊𐌇𐌆𐌋𐌕𐌌 (TUTERE) or 𐌆𐌕𐌌𐌆𐌋𐌕𐌌 (IKUVINI). The coins of these two mints resemble the Etruscan both as regards weight and the flatness of the flans ; also several types occur in common.

The date at which Tuder and Iguvium became Romanised is uncertain. Their aes grave, however, does not begin in all probability until the Roman As had fallen below the full "libral" weight. Local aes grave, as we have said, was frequently issued above the Roman standard ; but in no cases does it appear to have been issued below it, since this would have tended to frustrate the Roman policy which obviously was to attract the circulation of Roman money into allied districts.

The first series of Tuder probably belongs to the period B. C. 275-268 and synchronizes with the Roman issues, Series II and "Semi-libral".

The second series was not issued probably till after B. C. 268, when the Roman As had fallen to about three ounces.

The coinage of Iguvium consists of two complete series and a single denomination (semis) of a third. Both series appear to have been issued about the same date as they are of the same weight-standard, which is somewhat lower than that of Tudur.

SYNOPSIS OF AES GRAVE OF UMBRIA

<i>Circa</i> B. C. 283-275	East Umbria. Sena Gallica (Nos. 201-207).
275-268	West Umbria. Tuder. <i>Series</i> I (Nos. 208-217). Iguvium. <i>Series</i> I, II, III (Nos. 227-239).
268-250 (?)	Tuder. <i>Series</i> II (Nos. 218-226).

ETRURIA

In several respects Etruria stands apart from the other districts of Central Italy in which aes grave was current. As far back as the 6th century B. C. her civilization far surpassed any in Italy. Art, closely akin to that of Greece, massive architecture, gold ornaments in profusion and excessive luxury, characterize the age of her greatness. Etruscan influence extended southwards to Campania and as far north as Luna; and it was largely due to this influence that the dwellers on the seven Roman hills were organized into a city state.¹

Politically Etruria was a federation of twelve ruling cities

1. For recent views on Etruria see "Etruria and Rome", R. A. L. Fell. Cambridge, 1924.

apparently without any central administration.¹ This system, though efficient for the management of internal affairs, was weak with regard to foreign politics since united action was difficult and it not infrequently happened that two or three cities formed minor leagues among themselves or entered into joint alliances with foreign powers.

Thus, between 490 and 340 B. C. the cities of Veii, Sutrium and Nepete, and indeed the whole district south of the Ciminian range, fell into Roman hands without arousing hostilities from the rest of Etruria. The numerous pacts between Rome and Etruscan cities and the repeated appeals made by Etruscan cities for Roman intervention destroyed all chance of united resistance. And although in B. C. 281 the consul Q. Marcius Philippus claimed a final triumph over the Etruscans, the Romanising of Etruria proper was accomplished by mutual compact rather than by any organized military campaign.

Numismatically Etruria is remarkable as being the only district of Central Italy that possessed a gold and silver coinage during, or perhaps prior to, the aes grave period. More remarkable still is the existence in Etruria of a currency consisting of unstamped metal disks of gold, silver and bronze, which seem to belong to the later period of aes rude. This unique coinage probably preceded the gold and silver coins, grotesque in style and often uniface, which are generally assigned to the 4th century B. C.

1. No ancient list of the twelve cities is preserved, but it has been conjectured as follows, Tarquinii, Veii, Vetulonia, Volaterrae, Cortona, Arretium, Perugia, Clusium, Volsinii, Falerii, Volci and Caere. Of these the first nine are practically certain, the last three may be open to question.

"It is, however, certain that the Etruscan league of twelve cities, like the other national leagues in Italy was either dissolved when the Etruscans entered the Roman alliance, or survived in an attenuated form for purely religious purposes" : Fell, p. 146.

Many specimens of the latter bear marks of value, e. g., XX, X, Λ, ΙΙΑ. thereby indicating the existence of a more or less completely developed monetary system, of which the unit was practically equal to the Roman scruple, thus bearing a striking similarity to the silver coinage of Rome¹.

It appears that a sudden change of standard occurred about mid-way through its period of issue. That is to say, the marks of value remained but the weight of the coins was reduced to a half. This, it is suggested, was necessitated by a corresponding reduction of the bronze standard of central Italy. Now the earliest reduction of this kind, so far as our evidence goes, was that commonly known as the "semi-libral"; and if this affected the Etruscan coinage, as no doubt it did, these gold and silver coins must have been issued a few years on either side of B. C. 271.

This would mean, of course, that they were concurrent with the Etruscan *aes grave*; which entirely contradicts the traditional view that the gold and silver belong to the 4th century B. C.².

It is probable that most of the Etruscan gold and silver were minted at Populonia and Vetulonia. But whether *aes grave* was also issued at these mints cannot be determined. It is possible, however, that there were in Etruria two species of coin-

1. "The Roman monetary system", *Num. Chron.*, 1918, p. 158, ff. Mommsen, *op. cit.*, I., p. 215.

2. The resemblance between the Etruscan and the Roman silver coinage, both as regards weight and the marks of value (i. e. X, Λ, ΙΙΑ, = X, V, ΙΙS) is too marked to be merely coincidental, and the question arises whether the Romans borrowed their silver standard from Etruria or whether the Etruscans imitated Rome. The latter is the more obvious; on the other hand the reduction in the weight of the Etruscan coins is more likely to have occurred about B. C. 271, i. e. before the *Denarius* was introduced. If, as we suggested, Rome derived her *aes grave* from Etruria, it is quite conceivable that the standard of her silver currency came from the same source.

age¹, not necessarily related to one another and issued by different mints.

It is very doubtful whether aes grave was issued in Etruria during the Libral period. Haeberlin, it is true, assigns certain examples of full Libral weight to Tarquinii (see *Corpus*, p. 121.), but beyond the fact that specimens have occasionally been found in this district there is no evidence of their Etruscan mintage, and to judge from their types and weights the coins seem rather to belong to Apulia.

A unique Uncia (No. 244 a) in the Museo Archeologico, Florence, is assigned by Milani to Telamon on account of its inscription, which to say the least is doubtful. An isolated issue of aes grave at Telamon during the Libral period would be difficult to explain; but it is certainly rash to form conclusions from a single specimen.

Perhaps too, the Sextans and Uncia inscribed *u* and *m* (see *Unclassified coins of Central Italy*, Nos. 315, 316,) may be assigned to Nepete and Sutrium in S. Etruria. The two initials probably denote a joint currency. But while the first is certainly *N*, the second may be either the Latin *m* or the Etruscan *s*.

The cities of Nepete and Sutrium, situated about eight miles apart on the southern slope of the Ciminian, were inconspicuous under Etruscan rule, but, after the fall of Veii, became important Roman outposts and are generally mentioned in connexion with one another. (Cf. *Livy*, vi, 9, 10; x, 14, and *Vell. Pat.* i, 14.)

The main series of Etruscan aes grave does not begin till after the defeat of Pyrrhus, B. C. 275. All the coins are con-

1. Even the silver coinage was not uniform as two standards of weight seem to have been in force in different parts of Etruria.

siderably below the Attic weight and fall naturally into two periods of issue.

SYNOPSIS OF THE AES GRAVE OF ETRURIA

Circa B. C.	GROUP I.	Weight of As.
275-271	A. Wheel (Obv. and Rev.). Cortona (?) B. Wheel. Bipennis,  ,  ,  . Vetulonia C. Wheel. Krater,  ,  . Arretium. "Augur's head" series. Cortona or Volsinii.	204-176 gms.
271-268	GROUP II ¹ Volaterrae, series I, II, III. D. Wheel. Amphora. E (1). Wheel — Anchor.  ,  ,  . Arretium (?) E (2). Id.   . Clusium. F. Wheel (Obv. and Rev.). G. Wheel. Three crescents.	164-131 gms.

The As of about 200 grammes (Group I) may represent a local standard, or it may be an approximation to the Roman standard at the time that the As was beginning to lose weight. In either case the evidence of date is the same; since, even if group I represents a local weight standard the coins would not have been issued until the Roman As had fallen as low or even lower than the local weight. The rule generally observed being that aes grave was only issued in accordance with a local standard when that standard was *heavier* than the Roman.

The Roman As began to lose weight about B. C. 275, and on historical grounds the Etruscan aes grave cannot have begun before this date.

1. All the series in this group, except G, contain multiples of the As.

Mints. — The chief mint-city for aes grave was Volaterrae (Volterra), and next in importance was probably Cortona. It has been suggested that there may have been mints also at Arretium (Arezzo), Clusium (Chiusi), Vetulonia, Volsinii (Orvieto or Bolsena), Perugia (Perugia), Sutrium, etc.

To Volaterrae alone can aes grave be assigned with certainty as the coins are inscribed $\text{I} \Delta \text{OAN} \text{E} \text{E}$ = Velathri, the ancient name of Volterra. These belong to the second period of Etruscan aes grave, when the weight approximated to the "semi-libral" issue at Rome.

To Cortona has been assigned series A and the "Augur's head" series; the crescent or C on the reverse being interpreted as the initial of the city. Garrucci, however, suggests Volsinii for the latter, which appears probable in view of the importance of Volsinii as a religious centre.

To Clusium (Camars or Chamars) — "Clusium quod Camars olim appellabant" (Livy, x, 25) — is assigned with some degree of probability series E (2), Wheel-Anchor and AN (Cha). Deecke, however, thinks AN stands for Caere (Beilage 1, p. 400, in Müller, 1; cf. Etr. Forschungen II, p. 33). But as the abbreviation AN occurs on an alliance coin in conjunction with the names, Populonia and Vetulonia ($\text{VNA} + \text{E} \text{E} \text{AN} \text{AHAN} \text{SV} \text{S}$ = FUFLUNACHA VETALU) Clusium would seem more likely than Caere.

To Arretium are assigned series C (Wheel-Krater) and E (1) (Wheel-Anchor). The latter may, however, belong to Clusium.

To Vetulonia (Vetalu or Vetluna) are assigned certain of the early silver coins and probably aes grave, series B. The *bipennis* occurs on later struck bronze of Vetulonia.

Several letters, supposed to be the initials of towns, occur in varying combinations on four out of the seven series with the "wheel" type; i. e., C , V , E , (Series B), M , C (Series C), $\text{E} \text{V} \text{H}$, and C (Series E. 1) and AN (Series E. 2).

These have been variously interpreted. ¶ may stand for Volaterrae, Volsinii or Vetulonia; ∩ for Cortona; ʌ possibly for Nepete; ʡ is probably ∫ (s) and may stand for Sutrium.

Series B, C and E. I may therefore be regarded as joint coinages of two or more towns. This may have been a survival of the earlier city-leagues, which appear to have been common. For example. Livy mentions the union of Perusia, Cortona and Arretium in B C 310 ; (IX, 37) ; of Perusia and Clusium, B. C. 295 ; of Perusia, Arretium and Volsinii, B. C. 294 (x, 37).

Types. — The Etruscan coin-types are of the simplest character. The "wheel" occurs on seven series with reverse types, double-headed axe, krater, amphora, anchor and crescents. These are all commonplace objects, and no abstruse allusions need be sought in them. The most remarkable type, with a distinctly religious bearing, is the "Augur's head" in conjunction with instruments of sacrifice. Milani suggests that the head is that of Attis (or Atys), priest of Cybele, and he explains the reverse as representing instruments of the worship of Zeus Tauros. "The religion of the Etruscans was particularly remarkable for the importance attached to augury. Hence Etruria is called by Arnobius 'genitrix et mater superstitionis' (Arnob., VII, 26). The practice of divination by inspecting the entrails of victims, appears to have been reduced to a more systematic form and body of rules by the Etruscans than by any other people. (Smith. *Dict. Geog.*, vol. I, p. 866.) " Gens ante omnes alias eo magis dedita religionibus, quod excelleret arte colendi eas" (Livy, v, 1).

BARBAROUS COINS.

SAMNIUM (?)

The four series of coins, Nos. 331-348, barbarous in style and of greatly reduced weights, we assign tentatively to Samnium. Haeberlin includes them under Latium-Campania ; but as coins of such crude types and barbarous workmanship can scarcely have been issued in these districts where the art of coin producing was higher than anywhere in central Italy, his attribution appears improbable.

Moreover, the Roman coinage circulated extensively throughout Latium, and local issues of silver and bronze abounded in Campania. Therefore, at the period to which these barbarous coins belong there would have been no need for this decadent species of cast money.

It is true that the types, head of Sol, horse's head, head of Janus and dolphin, occur on aes grave of Latium-Campania ; but this does not necessarily determine their mintage, and if, as we suggest, these barbarous coins were issued in some neighbouring district, such as Samnium, it is natural that they should imitate familiar types.

The four series fall into two groups.

a) Series I and II, inscribed respectively, E and , are of approximately the "semi-libral" standard, and were probably issued between B. C. 271 and 268.

b) Series III and IV, without inscriptions, are of about half the weight of the preceding,, and were issued after B.C. 268.

The four series may, therefore, be dated between B. C. 271 and about B. C. 260.

After a stout resistance to Rome, lasting through three periods of open war, the Samnites were vanquished in B. C. 290. Even then they reasserted their independence, and it was not till B. C. 272 that they finally submitted to Rome. Colonies were established at Beneventum (268) and Aesernia (263). Thus the period of colonization coincides roughly with the issues of these four series.

The inscriptions **CE** (series I) and **VAWM** (series II) have not so far been satisfactorily explained.

CE may possibly stand for Venafrum, a town on the border of Campania and Samnium, but perhaps Velecha is to be preferred.

VAWM has been explained as Melitum by Garrucci and Haeberlin. But Melae in Samnium seems quite as plausible.

AES GRAVE TYPES

It is convenient to classify the types under the main heads of (1) Deities, (2) Animals, birds, etc., and (3) Inanimate objects and symbols. The last preponderate considerably, while the deities are very much in the minority.

This does not necessarily imply an absence of religious instinct on the part of the people of Central Italy, but rather a lack of skill on the part of the fashioners of their rugged coins. Where Greek craftsmen were available, as at Rome or in the districts of Latium and Campania, due honour was done to the greater divinities. But elsewhere, owing to somewhat elementary notions of draughtsmanship and imperfect methods of production, the types are generally of the simplest character.

The only series in which the heads of different deities are adopted as the obverse types on all denominations is that of

Rome. On those issued at local mints the head of a Deity seldom appears on any coin of lower value than the Semis. Several of the Animal and Inanimate types may, however, be regarded as divine symbols or attributes ; for example, the Thunderbolt no doubt symbolizes Jupiter ; the Caduceus, Mercury ; the club, Hercules ; the dolphin or trident, Neptune ; the Lyre, Apollo, and so forth.

A few types perhaps have a more occult meaning as for example, the Pentagram, Swastika, or the solar and lunar types of Etruria.

The preference, however, is strongly for what may be called every-day objects, such as corn-grains, scallop-shells, knuckle-bones, acorns, wheels, vases of various shapes, axes and spear-heads.

To attempt to read into these anything beyond the most obvious and commonplace meaning is signally to misconceive the outlook of their designers. The first half of the 3rd century B. C., was a time of movement, conflict and anxiety both to the Romans and their neighbours in Central Italy. Rome was in the ascendant, yet the Roman was not blind to the precariousness of that political structure to which he pinned his faith. Ringed round by enemies, and tricked by time-serving allies, Rome more than once trembled on the brink of ruin. The Romans as well as the other dwellers in Central Italy knew that at any moment might come the call to defend hearth and home, and lived in a state of readiness. There was no time to indulge in flights of fancy, nor had they any use for philosopher artists like the Greeks. They lived face to face with hard facts, destitute of imagination, forced to contemplate the more elementary needs of life ; and of all records that they have left us few are more eloquent than the simple, if prosaic, types of the Aes Grave.

LIST OF TYPES (WITH ANNOTATIONS).

(REFERENCE NUMBERS ARE TO THE CORPUS)

I. — *Deities.*

Apollo (43, 56, 98, 132-136, 186, 187.)

Bellona (7, n.).

Hercules (5, 14, 19, 29, 31, 120, 124, 131, 137, 148, 177.)

Janus : *a*) bearded (1, 2, 8, 16, 25, 26, 144, 344).

b) without beard (36, 49, 298-314).

Janus, the god of beginnings, was aptly chosen by the Romans as the divinity to head their coinage. Janus was essentially an Italian deity. To him pertained the control of all things relating to time, the vicissitudes of war and peace, and the direction of commercial enterprises.

Down to the end of the Republican bronze coinage the head of Janus was retained as the obverse type of the As.

A youthful conception of Janus appears on aes grave of Campania and on the later Romano-Campanian didrachms. But the lack of a beard, as Dr. Hill points out, is not sufficient reason for assuming it to represent some deity other than Janus. (Cf. Heads of Mars, with and without beard, on Rom.-Camp. didrachms.)

Jupiter (3, 9, 10, 17, 27, 93, 94, 145, 146).

Mars (13, 97).

Mercurius (6, 15, 23, 32, 36, 39, 149, 151).

Minerva (4, 11, 12, 18, 28, 30, 37, 147).

Roma (7, 20-22, 24, 33-35, 50, 62, 63, 70, 71-79, 84-86, 150).

The goddess Roma appears in three distinctive forms of helmet : (1) The round close-fitting helmet of Bellona, with

crest and splayed visor (see Roma, 7); (2) The crested Corinthian helmet of Minerva, with peak in front for protecting the upper part of the face (see Campania, ser. E); (3) The Phrygian, slightly pointed at the top and surmounted with a griffon-head with spiked scales behind (see Campania, ser. D, F).

The goddess as the genius of Rome, is of a composite character combining the qualities of Minerva and Bellona. In art these distinctions were indicated by the different styles of helmet, and the evolution of the composite idea may be traced in the heads of Roma on denarii. Thus the earliest represent Roma in the close-fitting helmet of Bellona, with griffon-head instead of crest, and with side wings added. At a later stage, a peaked visor, a modification of the Corinthian, is incorporated into the general composition.

Silenus (180-183).

Sol (122, 331-333, 338, 345-348).

Various heads.

Augur's head (263-268). Confined to a single Etruscan series, and one of the few aes grave types, apart from purely mythological subjects, with a direct bearing on ancient religion. On the importance attached to augury by the Etruscans, see note on Etruria. The augurs, if not actually the ruling class, were undoubtedly the most influential in the district.

Female head (37, 50).

Gaul's head (201-207).

Male head in pileus (47, 60, 100). Intended probably for one of the Dioscuri. Considering the honour in which the "Heavenly Brothers" were held, and the conspicuous place accorded to them on the Roman silver coins, it is remarkable that no more direct reference to them is found on the aes grave.

Male head, bare or in taenia (97, 99, 194, 326, 335-337).
Medusa in shell (184, 185).

2. — *Animals, Birds, etc.*

Beetle (116).

Boar (46, 59, 101).

Boar's head (153, 163, 171, 173, 174, 177, 178).

Bull (34, 35, 87).

Bull's head (103, 194, 197).

Chrysalis (115).

Cock (134-136, 189, 190).

Cuttle-fish (104). Type evidently borrowed from coins of Syracuse.

Dog (89, 180-183, 209).

Dolphin (38, 51, 80, 127, 140, 155, 158, 161, 176, 188, 205, 312-314, 337).

Eagle (93, 94, 104, 208).

Elephant (334-336).

Fly (213, 214).

Frog (329).

Griffon's head (111, 131).

Horse (88, 132, 133, 137).

Horse's head (45, 58, 95, 96, 124, 201, 331-333, 338). A characteristically Punic type ; probably adopted on the coinage with reference to the Romano-Carthaginian alliances of B.C. 306 and 279.

Lion's head (95, 96).

Owl (163, 174).

Pegasus (44, 57, 152, 184, 185). Considered to be an allusion to the Punic war-ships, adopted at the time of the Romano-Carthaginian alliance.

Ram's head (176, 318).

Toad (107, 129, 142, 211, 212, 217).

Tortoise (90, 91, 106, 111, 217).

Wolf's head (153).

3. — *Inanimate objects and symbols.*

Acorn (42, 55, 69, 76).

Anchor (109, 175, 191, 192, 211, 212, 275-284).

Bipennis (195, 198, 257-262).

Bunch of grapes (108, 179, 232, 238).

Caduceus (35, 40, 53, 83, 165).

Club (70-76, 82, 112, 117, 126, 210, 305-311, 318).

Corn-ear (129, 142).

Corn-grain (39, 48, 52, 61, 316, 319).

Cornucopiae (208, 233-238).

Crescent (122, 130, 143, 154, 156, 159, 164, 172, 197, 227, 228, 239, 292-294, 320, 325, 329, 339-348).

Cross (125, 138, 317).

Dagger (203).

Falx (49-55).

Foot (323).

Hand, r. or l. (39, 52, 65, 73, 210).

Helmet (80 a, 233, 234, 330).

Jug or capis (112).

Jugum (322).

Knuckle-bone (41, 54, 67, 68, 75, 114, 128, 141, 320).

Lyre (173, 209).

Palm-branch (231, 237).

Pentagram (117, 118). A geometrical symbol connected with Pythagorean mysticism. How and why it came to be adopted on the coins of Central Italy is difficult to explain. It occurs as a symbol on denarii (*circa* B. C. 229-210) and on those

of L. Papius (B. C. 80). The ancient connexion of the Pentagram with the building craft suggests perhaps a more likely explanation than its association with Greek mysticism. This, at any rate, seems to be its reference on later denarii.

Pincers (235, 236).

Plough (196).

Prow of ship (1-33, 103, 144-151, 206). The *Prow* was adopted as the reverse type on all denominations of bronze of the Roman mint. We can dismiss the fantastic explanations of this type suggested by Ovid, Plutarch or Dracon of Corcyra, who would connect it either with the ship in which Saturnus is fabled to have sailed to Italy, or with Janus, who is reputed to have been the originator of ship-building and coin-striking. Saturnus has the credit of the latter as well. It is improbable, too, that it is in any sense a historical type, referring, as has been suggested, to the Roman victory at Antium, B. C. 338. The most plausible explanation is that it symbolizes Rome's aspiration on the sea, more particularly with regard to commerce.

Rudder (102).

Sacrificial instruments (263-268).

Scallop-shell (40, 53, 66, 74, 81, 118, 128, 141, 154, 157, 198, 207).

Shield (202).

Shoe (189, 190, 199, 200).

Solar disk (227, 228).

Spear-head (110, 171, 195, 215, 216).

Standing figures (339-344).

Star (116, 127, 140, 179, 316, 319).

Swastika (113).

Sword (or dagger) (203).

Thunderbolt (38, 51, 64, 72, 126, 139, 166-170).

Trident (109, 110, 204, 213, 214).

Triskelis (107). Evidently a Sicilian type with reference to friendly relations between Italy and Sicily.

Vase, two-handled (77-83, 101, 102, 105, 108, 178, 186, 187, 215, 216, 251-256, 269-274, 328). The *amphora*, *kantharus* and *krater* are the forms which most commonly appear on aes grave. It is difficult to discover whether or not these varieties have any special significance.

Wheel (84-91, 172, 229, 230, 245-262, 269-297, 326). Several different forms occur. The six-spoked wheel of Campania suggests a method of construction by which the spokes were formed of bent pieces of wood or metal, kept in position by mutual pressure and secured to a hexagonal hub. The Etruscan has either 4, 6, or 8 spokes, turned and slightly ornamented. There is also an Etruscan form in which 2 spokes are straight and 4 are curved; the principle being that of two crescents or semi-circles, placed back to back, with a straight bar between them. One or two other varieties occur on coins of Apulia. As we have pointed out (see note on Campania, ser. F.) it is unnecessary to suppose that the "wheel" types allude to road construction; and there is very little justification for connecting the Campanian "wheel" series with the completion of the Via Appia.

That the "wheel" is used as a cosmic symbol may be doubted, although it certainly occurs on coins of Iguvium along with the types, *solar disk*, *crescent* and *stars*.

Wing of eagle (318 a).

SYNOPSIS OF AES GRAVE

DATE	ROMA	LATIUM-CAMPANIA	APULIA	PICENUM	UMBRIA	ETRURIA	CENTRAL ITALY	NOTES
CIRCA B. C.								
311	Libral. Series I.	(L). Roman issues current.						311. Crisis of 2nd Samnite war. "Duoviri navales" appointed.
306		(C). Series B (1). C (1).						306. Romano-Punic alliance.
292		[Rom. - Camp. Didrs. class. I.]	Luceria (ser. I).					298. 3rd Samnite war begins.
290		(L). A (1), A (2).	Venusia (ser. I).					292. Venusia (c). 290. 3rd Samnite war ends.
289				Hatria. Ancona (?).			Vestini.	289. Hatvia (c).
283					Sena Gallica.			283. Sena Gallica (c).
								280-275. War with Pyrrhus.
279		(C). Series B (2), C (2), D (1), D (2), E. [R-C. Didrs. class II.]						279. Romano-Punic alliance.

276-5	Series II.	Series F.		Tuder (ser. I). Iguvium.	In genere, A, B, C. "Augur's head"		273. Alliance with Ptolemy Phila- delphus. » Paestum (c). » Cosa (c).
273							271. Alliance with Hiero and Ma- mertini.
271	Series III. (Reduced weight) "De- cussis", etc. Struck bronze, Sx. and Unc.	(L-C). Roman issues. Struck bronze.	Luceria (ser. II). Venusia (ser. II).		Volaterrae.	Barbarous coins (ser. I, II).	
268	Series IV. Struck Tri. Qd. Sx. and Unc. [Denarius, etc.].	["Quadriga- tus" Didrs.]. Struck bronze.	Asculum (?). Luceria (ser. III). Struck bronze. Venusia, struck bronze.	Tuder (ser. II).	In genere, D, E, F, G.	Barbarous coins (ser. III, IV).	268. Beneventum (c). » Ariminum (c).
264			Firmum.				264. 1st Punic war begins. » Firmum (c). 263. Aesernia (c).
242	Struck As. "Sextantal".						241. 1st Punic war ends.

CORPUS OF AES GRAVE

ROMA

SERIES I

Haeb. pl. 10-18.

B. M. C. pl. v-vi.

Circa B. C. 311-276.

		<i>Obverse.</i>	<i>Reverse.</i>	
1	As ¹	Head of Janus, bearded; below, mark of value, —.	Prow of ship, above, .	312.30; 267.83 ² . <i>Pl. 3, no. 1.</i>
2	As	Id. without mark of value.	Id.	301.23; 281.05
3	Semis	Head of Jupiter laur. l., below, S.	Id. above, S.	164.80; 134.53 <i>Pl. 3, no. 2.</i>
4	Triens	Head of Minerva l. wearing Corinthian helmet; below, oooo	Id. below, oooo	115.02; 89.44 <i>Pl. 3, no. 3.</i>
5	Quadrans	Head of Hercules l., ooo	Id. below, ooo	86.6; 67.59 <i>Pl. 3, no. 4.</i>
6	Sextans	Head of Mercurius l., oo	Id. below, oo	53.65; 43.38 <i>Pl. 3, no. 5.</i>
7	Uncia ³	Head of Roma l., helmeted; behind, o	Id. below, o	27.32; 21.77 <i>Pl. 3, no. 6.</i>

1. As of abnormal weight, 390.0 gms., Pesaro.

Minor variations occur in the treatment of the hair and beard, which are represented either as a mass of globules or in wavy lines.

2. Roma—perhaps more correctly, Bellona.

3. The weights given in the right-hand column are taken from Haebelin's "Aes Grave", unless stated to be otherwise. When two weights are given, the first is that of the heaviest known specimen (excluding abnormal coins); the second is the average weight computed by Haebelin.

ROMA

SERIES II

Haeb. pl. 18-22.

Circa B. C. 275-272.

B. M. C. pl. v-vii.

		<i>Obverse.</i>	<i>Reverse.</i>	
8	As ¹	Head of Janus; without mark of value.	Prow of ship l.; above, l.	308.32 ; 258.00 <i>Pl. 4, no. 1.</i>
9	Semis	Head of Jupiter laur. l.	Id. above, S.	152.50 ; 125.80
10	Semis	Id. laur., r.	Id. Id.	127.70
11	Triens	Head of Minerva l.	Id. below, oooo	108.50 ; 83.45
12	Triens	Id. r.	Id. Id.	84.15 ; 81.84
13	Triens ²	Head of Mars, bearded l.	Id. Id.	82.4 (Sydenham Coll.)
14	Quadrans	Head of Hercules l., below, club.	Id. below, ooo	77.60 ; 62.87
15	Sextans	Head of Mercurius l.	Id. below, oo	53.51 ; 41.91

1. The characteristics of series II are, (1) Prow to left. (2) Heads generally in low relief and wide-spread. (3) Marks of value no longer appear on the obverse. (4) The uncia is discontinued.

As the uncia reappears almost immediately as a struck coin, it is clear that series II cannot have been introduced until nearly the end of the "Libral" period. The change of reverse type does not imply a change of weight-standard, but very soon after the introduction of the "Prow to left" type the weight begins to diminish.

Henceforth the Prow to left becomes the rule on cast coins of the Roman mint.

2. The head of Mars instead of Minerva is most unusual. The bearded male head is, however, so well defined that it cannot be explained away as a mere accident in casting.

ROMA
SERIES III

Circa B. C. 271-269.

Haeb. pl. 43, 44.
("Semilibral" standard)

		<i>Obverse.</i>	<i>Reverse.</i>	
16	As	Head of Janus, without mark of value.	Ship's prow l., above, I.	162.84 ; 132.24
17	Semis	Head of Jupiter l., S.	Id. above, S.	89.50 ; 72.82
18	Triens	Head of Minerva l., oooo	Id. below, oooo	61.85 ; 53.08
19	Quadrans	Head of Hercules l., ooo	Id. below, ooo	41.15 ; 36.30
20	Decussis ¹	Head of Roma, helmeted, r., behind, X	Ship's prow l., above, X	1106.6 ; 668.54*
21	Tripundius	Id. behind, III.	Id. above, III.	313.31 ; 235.92
22	Dupondius	Head of Roma r., in crested helmet ; behind, II.	Id. above, II.	208.33 ; 177.6

STRUCK COINS.

23	Sextans	Head of Mercurius r., in winged cap; above, oo	Ship's prow r., above, ROMA ; below, oo	32.19 ; 26.42 Pl. 5, no. 2.
24	Uncia ²	Head of Roma l., in crested helmet ; on r., o	Id. below, o	17.62 ; 12.93 Pl. 5, no. 3.

1. The weights of the Decussis, Tripundius and Dupondius here given are those of the heaviest and lightest known specimens.

2. Haeberlin has added to this struck series two lower denominations, Semuncia and Quartuncia, bearing respectively the types of the Sextans and Uncia, but without marks of value. These designations for the small bronze coins appear open to question. First, on account of the absence of evidence to show that these denominations were ever struck in Rome ; and secondly, because the coins do not bear marks of value or even distinctive types, which are very remarkable omissions in the case of denominations newly introduced. [See *Pl. 12, nos. 7-9.*]

Within a few years the Sextans and Uncia were reduced to about the size and weight of these so-called Semunciae and Quartunciae, and if the latter represented

ROMA

SERIES IV

(Further reductions).

Haeb. pl. 49.

B. M. C. pl. x.

Circa B. C. 268-242.

		<i>Obverse.</i>	<i>Reverse.</i>	
25	As ¹	Head of Janus, (without mark of value).	Prow l., above, l.	115.50; 41.0 <i>Pl. 4, no. 2.</i>
26	As	Id.	Prow r., above, l.	81.0 (Sydenham Coll.) <i>Pl. 5, no. 1</i>
27	Semis	Head of Jupiter l., S.	Prow l., above, S.	60.69; 22.43 <i>Pl. 4, no. 3.</i>
28	Triens ²	Head of Minerva l., oooo	Id. below, oooo	38.21; 20.27 <i>Pl. 4, no. 4.</i>
29	Quadrans ³	Head of Hercules l., ooo	Id. below, ooo	30.00; 25.43

STRUCK COINS.

30	Triens	Head of Minerva r. in crested hel- met; above, oooo	Prow r.; above, ROMA or Λ below, oooo	31.44; 24.44 <i>Pl. 5, no. 4.</i>
31	Quadrans	Head of Hercules r., ooo	Id. below, ooo	21.71; 18.38
32	Sextans	Head of Mercurius r., oo	Id. below, oo	16.91; 13.03 <i>Pl. 5, no. 5.</i>
33	Uncia	Head of Roma r., o	Id. below, o	11.51; 7.82

different denominations the confusion would have been considerable. I suggest, therefore, that these small coins are not Semunciae and Quartunciae but simply Sextantes and Unciae of the Sextantal standard, issued for Latium-Campania rather than Rome. In this case the omission of marks of value is not remarkable, as the types would indicate the denominational value of the coins. Their date is probably *circa B. C. 242-229*.

1. Owing to the variation in the weights of these coins an *average* is meaningless. Therefore the weights given of nos. 25-29 are the maximum and minimum.

Haeblerlin includes in this series an As of 132.76 gms., which properly belongs to series III., "Semi-libral".

2. The rarity of these reduced denominations is remarked upon by Mr Grueber (B. M. C. I, p. 19, n.). It may be mentioned further, that the Trientes with thick, dumpy flans, possibly of Roman mintage, are considerably rarer than those of flat and semi-barbarous style.

3. The Quadrans is not illustrated by Haeblerlin. But see Bab. vol. I, p. 48, no. 17. D'Ailly mentions three varieties.

The issue of these Trientes and Quadrantes must have been very limited and they were soon superseded by struck coins.

LATIUM

Circa B. C. 300. Roman aes grave of series I circulated throughout the greater part of Latium.

A (1).

Haeb. pl. 55.

Gar. pl. xxxii.

Circa B. C. 290.

B. M. C. pl. lxxvi, lxxvii.

		<i>Obverse.</i>	<i>Reverse.</i>	
34	As ¹	Head of Roma facing, wearing crested helmet.	Bull walking r.; in ex., ROMA; above, ↓	321.05; 278.55
			A (2).	
35	As	Id.	Id. in ex., ROMA or ROMA above, caduceus.	313.0; 278.55

1. Assigned by Riccio to Luceria, and by Haerberlin to Rome. Grueber suggests Lavinium (Latium) tentatively. (See note on Latium p. 46, also B. M. C. vol. II, p. 145 n.).

The head on the obverse is generally supposed to represent Roma, although it exhibits no features by which it may be identified with this goddess. It is evidently copied from the head of Minerva, or Pallas, that appears on didrachms of Heraclea (Lucania) and on tetradrachms of Audoleon, king of Paeonia (B. C. 315-286.) Example of unusual weight, 336.0 gms., Parma.

CAMPANIA

B (1).¹

Haeb. pl. 38-40.

Circa B. C. 306-281.

Gar. pl. xxxvii.

		<i>Obverse.</i>	<i>Reverse.</i>	
36	As ²	Head of Janus, beardless.	Head of Mercurius 1.	364.25 ; 320.51
37	Semis ³	Head of Mars (or Minerva) l. wearing Corinthian helmet ; below S	Female head l., below, S	186.07 ; 159.92 <i>Pl. 6, no. 1.</i>
38	Triens	Thunderbolt, oooo	Dolphin, oooo	139.37 ; 106.07 <i>Pl. 6, no. 2.</i>
39	Quadrans	Two corn-grains, ooo	Open right-hand, ooo	106.57 ; 80.40 <i>Pl. 6, no. 3.</i>
40	Sextans	Scallop shell, oo	Caduceus, oo	77.46 ; 54.73
41	Uncia ⁴	Knuckle-bone, o	o	40.35 ; 26.76
42	Semuncia	Acorn.	{ or }	24.15 ; 16.93

1. Probably in connexion with this series were issued, *Didr.*, Obv. Head of Mars bearded, l. ; rev. Horse's head r., corn-ear, **ROMANO** — ; and 1/2 *Litra*, Obv. Head of Minerva l. ; rev. Horse's head r. (Bab. I., p. 10, nos. 4,5).

2. As, abnormal wt., 400.32 gms., Haeb.

3. Semis, abnormal wt., 205.90 gms., Haeb.

4. An Uncia of type no. 41 but with **ENV** on the reverse is figured by Garrucci, pl. XL. 8, but is omitted by Haeb. The genuineness of the coin is open to question. [Cf. Hirsch sale, Munich 1914, no. 596.]

CAMPANIA

SERIES C (1) ¹

Haeb. pl. 34-36.

Circa B. C. 285-280.

Gar. pl. xxxiv.

		<i>Obverse.</i>	<i>Reverse.</i>	
43	As	Head of Apollo r.	Head of Apollo l.	398.40 ; 335.0 <i>Pl. 8, no. 1.</i>
44	Semis ²	Pegasus r., below, S	Pegasus l., below, S	195.30 ; 165.25
45	Triens	Horse's head r., below, oooo	Horse's head l., below, oooo	145.24 ; 110.94
46	Quadrans	Boar running r., ooo	Boar running l., ooo	107.05 ; 84.0
47	Sextans ³	Male head r., in pileus ☉	Similar head l., ☉	79.00 ; 56.60 <i>Pl. 8, no. 2.</i>
48	Uncia	Corn-grain, o	Corn-grain, o	37.26 ; 27.40

Connected with this series are *Didr.*, Obv. Head of Apollo, laur. l., ROMANO ; Rev. Horse prancing r., star. (Bab., I, pl. 11, no. 6) and *Litra*, Obv. Head of Apollo r. ; Rev., Lion r. (Bab., no. 9 var.).

1. Assigned by Head to Formiae, Fundi or Fregellae ; by Garrucci to Suessa ; by Haeberlin to Capua.

2. Semis of Abnormal wt., 224.5 gms. ; Sydenham Coll.

3. Probably heads of the Dioscuri. An Uncia of the same type as the Sextans is figured by Garrucci, pl. XL.6. It is not described by Haeberlin and its genuineness may be questioned. [Cf. Hirsch sale, Munich 1914, no. 588:]

CAMPANIA

Circa B. C. 279-275.

(Weight reduced to the Roman standard.)

SERIES B (2).

Haeb. pl. 31.

Gar. pl. xxxvi.

(Types similar to those of B (1), but with *falx* on reverse throughout.)

		<i>Obverse.</i>	<i>Reverse.</i>	
49	As ¹	Janus.	Mercurius l., <i>falx</i> .	286.80 ; 271.26 <i>Pl. 6, no. 4.</i>
50	Semis	Mars or Minerva. l., S	Female head l. S, <i>falx</i> .	173.40 ; 135.37 <i>Pl. 7, no. 1.</i>
51	Triens	Thunderbolt, oooo	Dolphin, oooo <i>falx</i> .	104.60 ; 91.29 <i>Pl. 7, no. 2.</i>
52	Quadrans	Two corn-grains, ooo	Right hand, ooo <i>falx</i> .	84.05 ; 67.37 <i>Pl. 7, no. 3.</i>
53	Sextans	Scallop, oo	Caduceus, oo <i>falx</i> .	53.67 ; 45.97 <i>Pl. 7, no. 4.</i>
54	Uncia	Knuckle-bone, o	Id. o <i>falx</i> .	27.93 ; 23.39 <i>Pl. 7, no. 5.</i>
55	Semuncia	Acorn	ξ or } <i>falx</i> .	—

Connected with this series are, *Didr.* Obv. Mars, young head r. ; Rev. Horse's head r., *falx*, **ROMA**. *Drachm.* Similar types (Bab. I, p. 27, nos. 34, 35) and half *litra*, similar (cf. B. M. C., II, p. 129).

SERIES C (2).

Haeb. pl. 33.

Circa B. C. 279-275.

Gar. pl. xxxiii.

(Types similar to those of series C (1), but coins of Roman weight.)

		<i>Obverse.</i>	<i>Reverse.</i>	
56	As	Apollo r.	Apollo l.	318.57 ; 283.86
57	Semis	Pegasus r., S	Pegasus l.,	141.65
58	Triens	Horse's head r., oooo	Horse's head l., oooo	92.00
59	Quadrans	Boar r., ooo	Boar l., ooo	72.42
60	Sextans	Male head r., oo	Male head l., oo	46.43
61	Uncia	Corn-grain, o	Corn-grain, o	—

Connected with this series are *Didr.*, *Drachm* and *half-litra*, Obv. Head of Apollo, *laur. r.* ; Rev. Horse prancing l., **ROMA** (Bab. I., p. 28, nos. 37-39.

1. As of unusual wt., 309.67 gms., Haeb. ex Bunbury coll.

SERIES D (1).

Haeb. pl. 27, 28.

Circa B. C. 279-275.

Gar. pl. xxxv.

		Obverse.	Reverse.	
62	As ¹	Head of Roma r., wearing Phrygian helmet; behind,	Similar head l.	302.87 ; 267.33 Pl. 9, no. 1.
63	Semis ²	Head of youthful Mars in Corinthian helmet; below, S	Similar head l.; below, S	159.50 ; 134.37 Pl. 9, no. 2.
64	Triens	Thunderbolt, oooo	Thunderbolt, oooo	98.40 ; 85.03
65	Quadrans	Open right-hand, ooo	Open left-hand, ooo	81.37 ; 65.92
66	Sextans	Scallop-shell, convex, oo	Scallop-shell, concave.	52.05 ; 43.61 Pl. 9, no. 3.
67	Uncia ³	Knuckle-bone, o	Knuckle-bone, o	27.45 ; 21.53 Pl. 9, no. 4.
68	Uncia	Id. (without mark of value).	Similar to obv.	22.88
69	Semuncia	Acorn ξ.	Acorn ζ	17.99 ; 13.15

With this series are probably connected, *Didr.* Obv. Head of Roma in Phryg. helm. r.; Rev. Victory holding palm. **ROMANO** (Bab. I, p. 12, no. 7); and *quarter-litra* (?). Rev. dog r. (Bab. no. 42).

1. The head is probably Roma, and the Phrygian style of helmet seems to convey an allusion to the legendary foundation of Rome by exiles from Troy. (Cf. Hill, *Hist. R. Coins*, p. 13.)

2. Sometimes described as Minerva or Roma.

3. Haeberlin gives examples of heavy unciae of this type; wt. 36.48 and 33.5 gms. These may belong to an earlier issue, possibly B (1).

SERIES D (2).

Haeb. pl. 28, 29.

Circa B. C. 279-275.

Gar. pl. xxxv.

(Types similar to those of series D (1), but with *club* on both sides.)

		<i>Obverse.</i>	<i>Reverse.</i>	
70	As	Roma r. (as no. 62), Club.	Roma l. (as no. 62), Club.	291.40 ; 269.38. <i>Pl.</i> 10, no. 1.
71	Semis	Mars r. (as no. 63), Club.	Mars l. (as no. 63), Club.	150.14 ; 132.35 <i>Pl.</i> 10, no. 2.
72	Triens	Thunderbolt, oooo, Club.	(As obv.).	107.40 ; 87.51 <i>Pl.</i> 10, no. 3.
73	Quadrans	Right hand, ooo, Club.	Left hand, ooo, Club.	78.67 ; 76.32
74	Sextans	Scallop, oo, Club.	Scallop, concave, Club.	56.69 ; 44.99
75	Uncia	Knuckle-bone, Club.	(As obv.).	29.10 ; 22.11 <i>Pl.</i> 10, no. 4.
76	Semuncia ¹	Acorn.	(As obv.).	—

Connected with this series are *Didrachm* and *half-litra*, Obv. Head of Mars r., club ; Rev. Horse prancing r., club, **ROMA** (Bab. I., p. 26, nos. 32, 33).

1. Doubtful. Not given by Haeberlin.

SERIES E. ¹

Haeb. pl. 62.

Circa B. C. 279-275.

Gar. pl. xxxviii.

		Obverse.	Reverse.	
77	As	Head of Roma (or Minerva) l., wearing Corinthian helmet.	Kan- tha- rus. 	321.34 ; 305.22
78	Semis	Id.	Id. 2	160.80 ; 146.31
79	Triens	Id.	Id. 	96.49
80	Quadrans	Dolphin l., 	Id: 	78.82 ; 72.15
80a	Quadrans ²	Crested helmet, 	Id. 	82.00 ; 73.24 <i>Pl. II, no. 1.</i>
81	Sextans	Scallop-shell, 	Id. 	50.43 ; 44.39
82	Uncia	Club, 	Id. 	23.05 ; 20.06 <i>Pl. II, no. 2.</i>
83	Semuncia	Caduceus 	Id.	15.28 ; 13.18 <i>Pl. II, no. 3.</i>

1. This series is assigned by Haeberlin to Cales on account of the similarity between the obv. type of the As, Semis and Triens and that of Didrachms of Cales. (B. M. C. Campania nos. 7-10.) This type does not occur on Romano-Campanian silver; but compare bronze half-Litra with, obv., Head of Minerva l.; rev., Horse's head r. (Bab. I., p. 11, no. 5).

2. Haeberlin places this Quadrans among the unclassified coins of Latium-Campania (Haeb. pl. 67), but the very distinctive reverse type seems unmistakably to connect it with series E (cf. Cat. Mus. Kirch.). Different types of the same denomination occur in other series of aes grave (cf. nos. 12, 13 ; 95, 96 ; 216, 217).

SERIES F.

Haeb. pl. 23-25.

Gar. pl. xxxix, xl.

Circa B. C. 275-271.

		<i>Obverse.</i>	<i>Reverse.</i>	
84	Tripundius ¹	Head of Roma r., wearing Phrygian helmet,	Wheel with six spokes,	881.00 <i>Pl. B, no. 1.</i>
85	Dupondius	Id.	Id.	625.20
86	As	Id.	Id.	307.70; 271.3 <i>Pl. II, no. 4.</i>
87	Semis	Bull prancing l., below, S	Id. S	171.20; 132.62 <i>Pl. II, no. 5.</i>
88	Triens ²	Horse prancing l., ⊙ ⊙	Id. ⊙ ⊙	111.30; 88.90 <i>Pl. I2, no. 1.</i>
89	Quadrans	Dog running l., ooo	Id. ooo	84.87; 65.73 <i>Pl. I2, no. 2.</i>
90	Sextans	Tortoise.	Id. oo	62.50; 44.49 <i>Pl. I2, no. 3.</i>
91	Sextans	Id.	Id. (without mark of value).	53.57

1. Wheel, see notes on types; also Latium p. 51. These are the only multiples of the As issued before the first weight-reduction.

2. Cf. Romano-Campanian didrachms, *Bab.* nos. 6, 32, 37. The "free horse" type occurs also on autonomous silver and bronze of Arpi, Salapia, Grunum, Luce-ria and several Sicilian mints.

The obverse types of Tripundius, Dupondius, As and Quadrans seem to connect this series with the Didrachm and Quarter-Litra (?) (*Bab.* I, p. 12, no. 7 and no. 42) already noticed in connexion with series D (1). It is quite possible, however, that the same type of Didrachm stands at the head of both series of aes grave, as apparently they are consecutive issues of the same mint.

CARSEOLI (?) ¹

Circa B. C. 290-275.

		<i>Obverse.</i>	<i>Reverse.</i>	
92	Sextans	Bipennis	CAR o o	53.78

REATE (?) ²

Circa B. C. 290-275.

Haeb. pl. 64.

		<i>Obverse.</i>	<i>Reverse.</i>	
93	As	Head of Jupiter (or Genius) l. TN	Eagle standing l.; head turned r., holding a fish in its claws; above, R	314.92
94	As	Similar, but with LT	Id.	244.6

LATIUM-CAMPANIA

Ungrouped coins ³.

Circa B. C. 289-271.

Haeb. pl. 63.

		<i>Obverse.</i>	<i>Reverse.</i>	
95	As	Lion's head facing, with sword in mouth. Sword pointing l.	Horse's head l., with symbols, caduceus, cornucopiae, corn- grain.	316.16; 265.74 <i>Pl. 13, no. 1.</i>
96	As	Similar but sword to r.	Similar; without symbol.	287.60 (Hirsch Cat. 1914)
96a	As ⁴	Head of Hercules r. (see no. 131).	Head of griffon r.	331.30; 303.79

1. Attribution uncertain. The obv. type appears on several coins of the eastern districts, Umbria and Apulia. CAR may possibly stand for Carsulae in Umbria, although the date of its occupation by the Romans is unknown.

2. Attribution uncertain. Haeberlin considers the letters, TN and LT are magistrate's names.

3. Haeberlin assigns several other coins to Latium-Campania which seem rather to belong to Apulia (q. v., nos. 172-174, 176-179; also "Central Italy" Uncertain, nos. 315, 316, and 319-330).

4. The obv. type seems to connect this coin with Didr. (Bab. no. 8), hence Haeberlin assigns it to Campania. Both coins may, not improbably, belong to Luceria. Cf. *Litra* (Bab. I, p. 29, no. 41), which may have been issued in connexion with this As. Cf. also *Semuncia* no. 152.

		Obverse.	Reverse.	
		Haeb. pl. 64.		
97	As	Helmeted head (Mars ?) l.	Young male head l., in taenia	249.4
		Haeb. pl. 65.		
98	Semis	Head of Apollo laur. l.	Horse's head l.	188.57
99	Semis	Young male head l., hair bound with fillet.		174.70 ; 155.84
100	Semis	Head l. in Phrygian helmet (Roma ?) S	Male head l. S	170.17 ; 165.24
101	Semis	Two-hand- led vase (krater). 	Boar standing r., S	175.20 ; 155.80
102	Semis	Two-hand- led vase: 	Rudder, S (?)	151.6 ; 149.77 H, Pl. 95.
		Haeb. pl. 66.		
103	Semis ¹	Head of bull r.	Prow of ship r., S	167.96 ; 146.04 Pl. C, no. 2.
104	Triens ²	Eagle l., ☉ ☉	Cuttle fish, ☉ ☉	121.15 ; 107.49
105	Triens	Two-handled am- phora, ☉ ☉	Rhyton, or vase ter- minating in ani- mal's head, ☉ ☉	104.0 (Mus. Kir.) 100.4 (Hirsch)
106	Triens	Tortoise, ☉ ☉	Drinking horn 	92.45
		Haeb. pl. 67.		
107	Quadrans	Toad, ☉ ☉	Triskelis, ☉ ☉	83.50 ; 74.76 Pl. C, no. 3.
108	Quadrans	Bunch of grapes.	Amphora ooo 	73.71 ; 71.95

1. Specimen in Hirsch Cat. (1914), wt. 172.40 gms.

2. 104 and 107. The types, *Cuttle-fish* and *Triskelis*, appear to be borrowed from

		<i>Obverse.</i>	<i>Reverse.</i>	
		Haeb. pl. 68.		
109	Sextans	Anchor, oo	Ornamental trident oo	69.70 ; 53.60
110	Sextans	Spear-head, oo	Id.	69.60 ; 48.69 <i>Pl.</i> 13, no. 5.
111	Sextans	Tortoise, oo	Crowned griffon's or snake's head, oo	53.7 ; 44.62 <i>Pl.</i> 13, no. 3.
112	Uncia	Jug with handle, o	Curved club (Pe- dum), o	34.15 ; 24.80 <i>Pl.</i> 13, no. 4.
113	Uncia ¹	Swastika ☸	o in circle.	32.20 ; 25.87 <i>Pl.</i> 13, no. 6.
114	Uncia	Finger bone (pha- lanx)	Knuckle bone.	34.35 ; 27.03 <i>Pl.</i> 13, no. 8.
115	Uncia	Chrysalis (?), o	Chrysalis (?)	16.12
116	Semuncia ²	Beetle.	Star with 4 points.	20.40 ; 12.87
117	Uncia	Pentagram ; in centre, o 	Club, o	36.75 ; 28.16 <i>Pl.</i> 13, no. 7.
118	Semuncia	Id.	Scallop-shell.	25.20

Of the above coins, assigned to Latium-Campania, the following are grouped in a series by the editors of the *Cat. Mus. Kirch.* The arrangement is, however, conjectural.

As. — Lion's head, *R.* Horse's head (Nos. 95, 96).

Semis. — Vase, *R.* Boar (No. 101).

(But the types of no. 98 appear more closely related to those of the As.)

Triens. — Eagle, *R.* Cuttle fish (No. 104).

Quadrans. — Toad, *R.* Triskelis (No. 107).

Sextans — Tortoise, *R.* Griffon head (No. 111).

Uncia. — Jug, *R.* Pedum (No. 112).

Semuncia. — Beetle, *R.* Star (No. 116).

Sicilian coins. The invasion of Pyrrhus united Latium and Sicily in common cause, and these coins may have been issued about this time.

1. A curious example of this uncia has the *pentagram* (cf. 117) deeply incised on the reverse. (Sydenham Coll.)

2. Perhaps this semuncia should be grouped with Uncia no. 179 (Apulia in genere), p. 112.

LATIUM-CAMPANIA

STRUCK BRONZE.

Circa B. C. 271-268.

Haebl. pl. 56.

B. M. C., II, pp. 135-8; pl. LXXV.

		<i>Obverse.</i>	<i>Reverse.</i>	
119	Triens ¹	Female head (Juno ?) r., wearing stephane oooo	Hercules standing r., in act of striking Centaur with club. On r., oooo in ex., ROMA	59.90; 50.94 <i>Pl. 12, no. 4.</i>
120	Quadrans ²	Head of Hercules r., ooo	Bull galloping r.; below, serpent; above, ooo; in ex., ROMA or ROMA	47.0; 38.85
121	Sextans	Wolf and Twins;	Eagle standing r. with a flower in its beak; oo before, ROMA	31.46; 26.04 <i>Pl. 12, no. 5.</i>
122	Uncia	Bust of Sol facing; o	Crescent; above, 2 stars and o; below, ROMA or A	14.72; 12.56 <i>Pl. 12, no. 6.</i>
123	Semuncia ³	Female bust r., wearing mural crown.	Horseman galloping r., holding whip; below, ROMA	8.20; 6.34

(The "Quadrigratus" didrachms and drachms were probably introduced in this period.)

1. Juno probably in the character of Queen of heaven, and connected more particularly with the new moon. This cult was extremely popular at Capua, to which city Haeberlin assigns this series of coins.

2. The quadrans is the only denomination of this series that was issued down to a late date, probably B. C. 217. The types remain the same, but the weight was reduced successively to 17.19, 12.05 and 6.50 grammes.

After B. C. 268 there appears to have been a limited issue of cast Asses and Semisses (Roman type).

Among the struck coins of Latium-Campania (B. C. 242-229) are Sextantes and Unciae, without marks of value (cf. no. 24, n.).

3. Presumably the personification of a city; in which case it can hardly be other than Rome, but is, of course, entirely distinct from any representation of the goddess Roma. This particular mode of personification, though common in the case of Asiatic cities, is scarcely ever applied to Rome.

APULIA

LUCERIA

SERIES I.

Haeb. pl. 70, 71.

Gar. pl. LXIII.

Circa B. C. 300-280.

		<i>Obverse.</i>	<i>Reverse.</i>	
124	As	Head of young Hercules r.	Horse's head with bridle.	360.79 ; 353.29
125	Quincunx ¹	Cross (or wheel) 	Similar to obv. with 	125.5 ; 111.90 <i>Pl. 14, no. 1.</i>
126	Quatrunx	Thunderbolt.	Club, oooo	137.05 ; 112.27 <i>Pl. 14, no. 2 and Pl. C, no. 7.</i>
127	Teruncius	Star with 6 rays.	Dolphin l., ooo	117.95 ; 88.46 <i>Pl. 14, no. 3.</i>
128	Biunx	Scallop shell.	Knuckle-bone, oo	79.77 ; 69.93 <i>Pl. 14, no. 4.</i>
129	Uncia	Toad.	Corn-ear, o	51.12 ; 35.70 <i>Pl. 14, no. 5.</i>
130	Semuncia	Crescent.		31.94 ; 21.66

1. The *Quincunx* is a denomination peculiar to the eastern districts of Italy. It was evidently reckoned as half an As ; that is to say, the monetary systems of the eastern districts were constituted on a decimal basis. So that in these systems the Semis of 6 ounces finds no place. Rather curiously, however, at Luceria and at an uncertain town, indicated on coins by the letter Π (possibly Palio), we find Semisses and Quincunces issued side by side.

At Luceria the Quincunx occurs in the earliest cast issues but the Semis is not introduced till about B. C. 268. The latter occurs only in the series described as Romano-Lucurian (Series III) ; which runs parallel with the local Lucurian series down to the time of the 2nd Punic war. It is pretty certain, therefore, that Luceria possessed a dual mint system, autonomous and Roman. The former dating from the beginning of the 3rd century B. C., and the latter, possibly organised by the Roman Senate, about B. C. 268. It may have been a concession on the part of Rome to local custom that Luceria was allowed to retain her autonomous coinage with its decimal system of reckoning, but the arrangement cannot have been free from a certain amount of confusion in practice.

SERIES I.

Haeb. pl. 70, 71.

Circa B. C. 280-271.

Gar. pl. LXIII.

		<i>Obverse.</i>	<i>Reverse.</i>	
131	As ¹	Head of Hercules r.	Head of griffon r.	331.3 ; 303.79 (Haeb. pl. 63).
132	As	Head of Apollo r., laur.	Horse prancing r. ; above, star.	345.94 ; 326.93
				
133	As	same type C·MODIO·GR·F· PVVIO·Λ·F	Id.	
134	As	Head of Apollo laur., l. ; be- fore 	Cock l.	301.0 ; 225.67 (H Lat. pl. 64) Pl. 14, no. 6.
135	As	Id.	Id. Λ·SEXTI·SEP· BABI	274.10
136	As	Id.	Id. M·ΛVINIO	272.37

SERIES II.

Haeb. pl. 71.

Circa B. C. 268-250.

Gar. pl. LXIV.

		<i>Obverse.</i>	<i>Reverse.</i>	
137	As	Head of Hercules r.	Horse prancing r. ; above, star ; below, 	92.25 ; 75.61 Pl. 15, no. 1.
			oo	
138	Quincunx	Cross. 	Cross with ooo and 	43.45 ; 36.19 Pl. 15, no. 2.
139	Quatrunx	Thunderbolt.	Club ; above, oooo ; below, 	39.33 ; 30.26 Pl. 15, no. 3.
140	Teruncius	Star with 8 rays.	Dolphin, ooo 	35.20 ; 24.59 Pl. 15, no. 4.
141	Biunx	Scallop shell.	Knuckle-bone, oo 	23.50 ; 18.40
142	Uncia	Toad.	Corn-ear, o 	14.80 ; 11.40 Pl. 15, no. 5.
143	Semuncia	Crescent.		8.88 ; 6.35 Pl. 15, no. 6.

1. See note on No. 96a.

SERIES III (Roman types).

Haeb. pl. 72.

B. M. C. pl. LXXXII.

		<i>Obverse.</i>	<i>Reverse.</i>	
144	As ¹	Head of Janus.	Ship's prow r.; on r., ↓	101.70; 87.97 <i>Pl. 15, no. 7.</i>
145	Semis	Head of Jupiter r.	Id.	49.30; 41.74 <i>Pl. 15, no. 8.</i>

(No other cast denominations are recorded.)

STRUCK COINS

		<i>Obverse.</i>	<i>Reverse.</i>	
146	Semis	Head of Jupiter r., S	Prow r.; above, S ; on r., ↓; in ex., ROMA .	47.10; 42.24
147	Triens	Head of Minerva r., oooo, behind, ↓	Id. oooo (with or without ↓)	34.20; 24.56 <i>Pl. 15 no. 9.</i>
148	Quadrans	Head of Hercules r., ooo	Prow r.; above, ROMA ; on r., ↓ below, ooo	16.58 (D'Ailly)
149	Sextans	Head of Mercurius r., oo	Id. below, o ↓ o	11.98 (B. M.)
150	Uncia	Head of Roma r., o	Id. below, ↓ o	5.58 (B. M.)
151	Semuncia	Head of Mercurius r.	Id. below, ↓	4.60 (B. M.)
152	Semuncia ²	Head of Hercules r.; ↓	Pegasus r. ξ, ROMA	3.56 (D'Ailly)

1. The cast coins of the Romano-Lucerian class are rough in fabric and generally inferior to those of class II. Their rarity suggests that their issue was very brief.

2. Pegasus does not occur on any other coins of Apulia. With this *semuncia* cf. Romano-Campanian *Litra*, Bab. I, p. 29, n. 41.

APULIA
VENUSIA

SERIES I¹.

Circa B. C. 292-276.

Haeb. pl. 72, 73.

Gar. pl. LXV.

		<i>Obverse.</i>	<i>Reverse.</i>	
153	As	Head of boar l.	Head of wolf or dog l.	356.37 ; 336.35 <i>Pl. 16, no. 1.</i>
154	Teruncius	Scallop shell.	Three crescents 	101.50 ; 89.81
155	Biunx	Dolphin l., oo	Dolphin l., oo	69.72 ; 58.65 <i>Pl. 16, no. 2</i>
156	Semuncia	Crescent.	Crescent.	21.70 ; 17.30

Circa B. C. 271-268.

SERIES II.

		<i>Obverse.</i>	<i>Reverse.</i>	
157	Teruncius	Scallop shell.	Three crescents ; above, 	41.4 ; 37.33 <i>Pl. 16, no. 3.</i>
158	Biunx	Dolphin l., above, oo	Dolphin l., below, oo 	29.60 ; 23.00 <i>Pl. 16, no. 4.</i>
159	Semuncia	Crescent.	Crescent ; above, 	7.65 ; 6.15

After B. C. 268.

STRUCK COINS².

		<i>Obverse.</i>	<i>Reverse.</i>	
160	Teruncius	Head of Jupiter ooo	Three crescents and stars.	<i>Pl. 16, no. 5.</i>
161	Biunx	Head of Minerva oo	Two dolphins, 	<i>Pl. 16, no. 6.</i>
162	Uncia	Bust of Hercules o	Lion seated holding spear  .	<i>Pl. 16, no. 7.</i>
163	Semuncia	Head of boar.	Owl,  .	

1. The following have been assigned to Venusia (c. B. C. 292-276) by Mommsen, Head, Garrucci and other writers :

As. Head of boar. *℞*. Spear-head (No. 171).

Quincunx. Head of Minerva. *℞*. Owl, ooooo (not in Haebelin).

Quatrunx. Head of boar, oooo *℞*. Lyre, oooo (No. 173).

Teruncius. Head of boar, ooo *℞*. Head of Hercules (No. 177).

Biunx. Head of boar, oo *℞*. Owl, oo (No. 174).

2. The struck coinage of Venusia continues down to the time of the second Punic war.

APULIA

Circa B. C. 271-268.

ASCULUM (?).

		<i>Obverse.</i>	<i>Reverse.</i>	
164	Uncia ¹			22.99 (Haeb. Lat. pl. 67.)
165	Uncia ²			17.90 Pl. 17, no. 1.

ASCULUM.

After B. C. 268.

Haeb. pl. 72.

		<i>Obverse.</i>	<i>Reverse.</i>	
166	Quatrunx		Thunder-bolt 	51.57 ; 39.74
167	Teruncius		Id.	31.00 ; 25.81
168	Biunx		Id.	26.05 ; 22.26
169	Uncia		Id.	11.45
170	Semuncia			6.95 (O. U. C.) 6.68 (Haeb.)

1. The attribution of these coins is uncertain. The crescent is a common Apulian type although Haerberlin assigns the coins to Latium-Campania. It is not impossible that these coins are connected with the square blocks marked with the letter  assigned to Tarquinii (see "Aes signatum", p. 14). If so the blocks would seem to have been cast at a later date than that suggested for them.

2. Possibly a Semuncia.

APULIA IN GENERE

Circa B. C. 290-271.

		<i>Obverse.</i>	<i>Reverse.</i>	
171	As ¹	Head of boar l.	Spear-head l.	352.00 ; 326.57 (H., Etr. pl. 92)
172	Quatrunx	Star in crescent, oooo	Wheel with eight spokes.	117.10 ; 100.01 (H., Lat. pl. 67) <i>Pl. C, no. 1.</i>
173	Quatrunx	Head of boar r., ☉☉	Lyre, ☉☉	115.67 ; 95.15 (H., Lat. pl. 66) <i>Pl. 17, no. 2.</i>
174	Biunx	Head of boar l., oo	Owl, oo	59.27 ; 53.26 (H., Lat. p l. 68) <i>Pl. C, no. 4.</i>

Circa B. C. 276-271.

175	Teruncius	Dolphin r.	Anchor.	74.32 (H., Etr. pl. 92)
176	Teruncius	Head of ram l., ☉○	Dolphin ☉○	80.18 ; 75.86 (H., Lat. pl. 67) <i>Pl. 17, no. 3.</i>
177	Teruncius	Head of boar r., ooo	Male head (Her- cules) r.	56.58
178	Biunx	Head of boar l., oo	Shallow vase, oo	44.71 ; 41.61 (H., Lat. pl. 68)
179	Uncia	Bunch of grapes	Flower, or star with 4 rays	24.10
179a	Semuncia	Bunch of grapes	Spear-head	14.40 ; 10.42 (H., pl. 69)

1. Reasons for assigning this and the following 9 coins to Apulia rather than to Etruria or Latium-Campania will be found on p. 65.

PICENUM

HATRIA

Circa B. C. 289.

Haeb. pl. 74-76.

Gar. pl. LXI.

		Obverse.	Reverse.	
180	As	Head of Silenus facing; on r.,	Dog lying asleep; HAT	415.49; 373.57 Pl. 18, no. 1.
181	As	Id. on r.,	Id. Id.	400.00
182	As	Id. on l., ; on r.,	Id. Id.	383.60
183	As ¹	Id. on r., HAT	Id. below,	388.80
184	Quincunx	Medusa head l. in shell; below, HAT	Pegasus r.; below,	233.20; 193.17 Pl. 17, no. 4.
185	Quincunx	Id. but above,	Id.	154.20
186	Quatrunx	Head of Apollo l.;	Kan- tharus HAT	200.75; 172.32 Pl. 18, no. 2.
187	Quatrunx	Id.	Id. TAH	184.10
188	Teruncius	Dolphin l.; below, HAT	Dolphin l.; above,	136.60; 110.05 Pl. 18, no. 3.
189	Biunx	Shoe, below, HAT	Cock standing l.,	83.00; 65.07 Pl. 18, no. 4.
190	Biunx	Id. TAH	Id.	77.20
191	Uncia	Anchor		57.98; 35.83
192	Uncia	Id.		46.12
193	Semuncia	H		30.63; 18.96 Pl. 18, no. 5.

1. A specimen in the Hirsch Cat. weighs 408.45 gms.

PICENUM

ANCONA

Haeb. pl. 9, 10.

Circa B. C. 289.

Gar. pl. liv. I

		<i>Obverse.</i>	<i>Reverse.</i>	
193a	As ¹	Triskelis	Trident	483.30

1. The unique example of this As, in the Mus. Arch. Florence, was found between Todi (Tuder) and Perugia (Perusia). Its attribution to Ancona is at any rate probable. Ancona was founded by Greek exiles from Syracuse in B. C. 380, which may explain the obverse type of the Triskelis, while the Trident is appropriate to a sea-port town. The date at which Ancona fell into the hands of Rome is uncertain, but it may be presumed that Ancona shared the fate of Hatria and other parts of Picenum.

PICENUM

FIRMUM

Circa B. C. 264 or earlier ¹ Haeb. pl. 76.

		<i>Obverse.</i>	<i>Reverse.</i>	
194	Teruncius	Young male head 1., 000	◀ ◻ Bull's head facing	97.65, 66.56 ; 57.84 <i>Pl. D, no. 1.</i>
195	Biunx	Bipennis, 00	» Spear-head.	49.01, 48.50, 37.80

VESTINI

Circa B. C. 289-275 ². Haeb. pl. 73.

Gar. pl. LXII.

		<i>Obverse.</i>	<i>Reverse.</i>	
196	Teruncius ³	Lion's claw, VES	Plough r., 000	85.57
197	Biunx	Bull's head facing, 00	Crescent ; below, VES	85.50 ; 78.69
198	Uncia	Bipennis, 0	Scallop-shell ; be- low, VES	44.22 ; 38.54
199	Semuncia	Shoe.	VES	23.10 <i>Pl. 19, no. 1.</i>
200	Semuncia	Id. above, 2	Id.	22.10

1. The weights of these coins, vary considerably ; they are unusually heavy for this period and suggest an earlier date than B. C. 264. It is not impossible that these coins were issued autonomously, before Firmum was actually colonised by the Romans. They are of very rude fabric, and their type-relation to the coins of the Vestini suggests that they may have been issued about the same time.

2. The date of the coins of the Vestini can only be conjectured from their weights. Although the Vestini were allies of Rome they do not appear to have come under Roman influence to any great extent. The coin-types are related to those of Hatria; Firmum and Venusia.

3. Perhaps rather later than the other coins of this series. On account of its extreme rarity it is impossible to determine its normal weight.

UMBRIA
SENA GALLICA

(or Ariminum).

Circa B. C. 283.

Haeb. pl. 77.

Gar. pl. LIX.

		<i>Obverse.</i>	<i>Reverse.</i>	
201	As ¹	Head of Gaul r., wearing torque.	Horse's head r.	(Not in Haeb)
202	Quincunx ²	Id.	Pointed shield, oooo	196.40 ; 190.99
203	Quatrunx ³	Id.	Dagger and sheath, oooo	157.53 ; 152.38
204	Teruncius	Id.	Trident, ooo	117.20 ; 106.03 <i>Pl. 19, no. 2.</i>
205	Biunx	Id.	Dolphin r., oo	85.75 ; 72.39 <i>Pl. 19, no. 3 and Pl. D, no. 2.</i>
206	Uncia	Id.	Prow of ship l., o	39.31 ; 35.96 <i>Pl. 19, no. 4.</i>
207	Semuncia	Id.	Scallop-shell.	27.29 ; 18.96 <i>Pl. 19, no. 5.</i>

1. This piece is described in the *Cat. Mus. Kirch.*, but its authenticity is open to question. The obverse type has every appearance of being a portrait. If so it is probably the only attempt at portraiture found on aes grave. Livy tells the story of how T. Manlius slew a gigantic Gaul in single combat on the banks of the Anio. Thereafter he was known as Torquatus in allusion to the torque which he took from the neck of the defeated warrior. That the head on this series of coins may be an allusion to the heroism of Manlius is a mere suggestion ; but certainly the *torque* is a conspicuous feature on all the pieces.

The weights are slightly lower than the Hatrian, but belong apparently to the same standard.

2. Perhaps a Gallic shield. It is not found on any other example of aes grave but resembles that on "Brick" no. 1 (see "Aes Sig.").

With this form of oval shield may be compared the sculptured stone shields used as lids for well-tombs, found at Vetulonia (*Mus. Arch. Florence* ; cf. *Cat.*, p. 213).

The *Quincunx* is found in Eastern but not Western Umbria (cf. no. 125, n.).

3. Dagger, sheath, cf. "Brick" no. 2 ; also Trident, "Brick" no. 6 (see "Aes Sig.").

UMBRIA

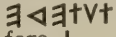
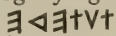
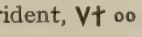
TUDER

SERIES I.

Circa B. C. 275-268.

Haeb. pl. 80, 81.

Gar. pl. lv.

		<i>Obverse.</i>	<i>Reverse.</i>	
208	As	Eagle walking l.,  before, l.	Cornucopiae with vine-leaf and bunch of grapes Below, l.	254.85 ; 250.17
209	Semis ¹	Dog lying asleep,  be- low	Lyre ; on r., 	127.40 ; 118.23
210	Triens	Hand in cestus, 	Two clubs, 	91.11 ; 83.72 <i>Pl. 20, no. 1.</i>
211	Quadrans	Toad, 	Anchor ; on l,  on r, 	64.76
212	Quadrans	Id.	Id. on l,  ; on r, 	66.65 ; 62.72
213	Sextans	Fly, 	Trident, 	39.35 <i>Pl. 20, no. 2.</i>
214	Sextans	Id.	Id.  (no mark of value)	50.18 ; 40.46
215	Uncia	Two- handled vase 	Spear-head ; on l,  ; on r, 	21.45 <i>Pl. 20, no. 3.</i>
216	Uncia	Id.	Id. on l,  ; on r, 	26.46 ; 20.93
217	Uncia	Toad, 	Tortoise,  	17.15 ; 16.80

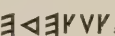
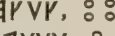
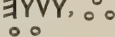
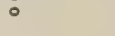
1. The value mark for *semis* on coins of Western Umbria and Etruria is  or  instead of .

SERIES II.

Haeb. pl. 81.

Gar. pl. LVI.

After B. C. 268.

		Obverse.	Reverse.	
218	As ¹	(As No. 208)	(As No. 208)	(Not in Haeb.)
219	Semis ²	(As No. 209)	Lyre ; on l., 	46.06 Pl. 20, no. 4.
220	Semis	(As No. 209)	Id. on r., 	54.57 ; 37.81 ;
221	Triens	(As No. 210)	2 clubs,  	22.80 Pl. 20, no. 5.
222	Triens	(As No. 210)	Id.  , 	39.29 ; 27.85
223	Quadrans	(As No. 211)	Anchor,  , 	17.39
224	Quadrans	(As No. 211)	Id.  , 	29.15 ; 19.88 Pl. 20, no. 6.
225	Sextans	(As No. 213)	(As No. 213)	17.95 ; 13.90 Pl. 20, no. 7.
226	Uncia	(As No. 215)	(As No. 215)	14.02 ; 9.32 Pl. 20, no. 8.

1. Authenticity doubtful. Cf. Cat. Mus. Kirch.

2. Several minor varieties of the Semis exist.

UMBRIA-IGUVIUM

SERIES I.

Haeb. pl. 78.

Circa B. C. 275-268.

Gar. pl. LVII, LVIII.

		<i>Obverse.</i>	<i>Reverse.</i>	
227	As ¹	Crescent, $\langle \text{N} \text{I} \text{V} \rangle \text{II}$, in centre; around, 4 stars	Solar disk sur- rounded by 12 rays	195.60 ; 173.65
228	Semis	Similar, but in centre, $\langle$	Id.	120.58 ; 114.82 <i>Pl. 21, no. 1.</i>
229	Triens	Wheel with four spokes ; around, $\text{IKVFI} \text{NI}$	Wheel (as obv.) $\begin{smallmatrix} \circ & \circ \\ \circ & \circ \end{smallmatrix}$	71.3 ; 66.63
230	Quadrans	Wheel with three spokes ; $\text{IKVFI} \text{NI}$	Wheel (as obv.) $\begin{smallmatrix} \circ & \circ \\ & \circ \end{smallmatrix}$	56.80 ; 50.52 <i>Pl. D, no. 3.</i>
231	Sextans	Palm-branch	$\circ \circ$	34.35 ; 28.60 <i>Pl. D, no. 4.</i>
232	Uncia	Bunch of grapes	$\circ$	20.07 ; 16.14

SERIES II.

Haeb. pl. 79.

Gar. pl. LVIII.

		<i>Obverse.</i>	<i>Reverse.</i>	
233	As	Cornucopiae, $\langle \text{N} \text{I} \text{V} \rangle \text{II}$	Corinthian helmet	205.15 ; 191.77 <i>Pl. D, no. 5.</i>
234	Semis	Id.	Id.	97.44
235	Triens	Id.	Pair of pincers, $\begin{smallmatrix} \circ & \circ \\ \circ & \circ \end{smallmatrix}$	58.07 ; 56.39
236	Quadrans	Id.	Id. $\begin{smallmatrix} \circ & \circ \\ & \circ \end{smallmatrix}$	42.15 ; 37.99 <i>Pl. D, no. 6.</i>
237	Sextans	Id. $\circ \circ$	Palm-branch	31.68 ; 24.52
238	Uncia	Id. $\circ$	Bunch of grapes	20.10 ; 14.97 <i>Pl. 21, no. 2.</i>

SERIES III.

		<i>Obverse.</i>	<i>Reverse.</i>	
239	Semis ²	Crescent, $\langle \text{N} \text{I} \text{V} \rangle \text{II}$; in centre, knuckle-bone	Oval object bet- ween two stars ; below, crescent	113.98 ; 93.56

1. As of unusual weight : 213.90 gms. (London). The Asses of series I. appear to have been issued at two standards ; i. e., heavy, av. wt., 195.6 and light, av. wt., 173.65 gms.

2. No other denominations of this series appear to be known.

OVAL PIECES ¹

Circa B. C. 273-268.

Haeb. pl. 81.

		<i>Obverse.</i>	<i>Reverse.</i>	
240	As	Club		165.0 ; 156.42
241	Semis	Id.		80.10 ; 73.63
242	Quadrans	Id.	ooo	62.28 ; 44.59
243	Sextans	Id.	oo [pl. 21. 3]	51.20 ; 25.73 <i>Pl. 21, no. 3.</i>
244	Uncia	Id.	o	20.05 ; 11.33

1. Assigned by various writers either to Tudor or Iguvium. The mintage of these pieces is uncertain, but there is little doubt they belong to Umbria.

ETRURIA

Circa B. C. 290-280.

TARQUINII

The following are assigned by Haeberlin to this mint. Descriptions of the coins will be found elsewhere in the corpus. (Cf. Haeb. pl. 92.)

- As. — Cross (*obv.* and *rev.*). See No. 317.
 As. — Boar's head — Spear-head. See No. 171.
 Semis. — Ram's head — Club. See No. 318.
 Quadrans. — Dolphin — Anchor. See No. 175.
 Sextans. — Plough r. — Plough l. (Haeb. pl. 67, 4.)
 Uncia. — Jugum — Crescent. See No. 322. (Haeb. pl. 69.)
 Semuncia. — Frog — Crescent. See No. 329. (Haeb. pl. 69.)

TELAMON (?)

		<i>Obverse.</i>	<i>Reverse.</i>	
244a	Uncia ¹	O in centre; below, 𐌔 𐌕 𐌕 𐌕 (= tlamu)	O in centre	

POPULONIA (?)

		<i>Obverse.</i>	<i>Reverse.</i>	
244b	Uncia	O in centre; below 𐌕 𐌕 𐌕 𐌕 (= p(l)una)	O in centre	14.13 (Haeb. pl. 97, 15)

1. Unique example in Mus. Arch. Florence. The attribution of these coins to Telamon and Populonia is by no means certain. In fact it is doubtful if any Aes Grave were issued in central Etruria prior to the introduction of the "Semi-libral" standard.

ETRURIA
ETRURIA IN GENERE

SERIES A.

Circa B. C. 275-271.

Haeb. pl. 85.

		<i>Obverse.</i>	<i>Reverse.</i>	
245	As	Wheel with six spokes incised with   or V	Wheel surrounded by dots	205.22 ; 188.57
246	Semis	Id.	Similar to obv. 	97.0 ; 90.66
247	Triens	Wheel with four spokes	Wheel with four spokes, 	71.08 ; 61.55
248	Quadrans	Id.	Id. 	56.10 ; 47.14
249	Sextans	Id.	Id. 	38.51 ; 26.21 <i>Pl. 21. no. 4.</i>
250	Uncia	Id.	Id.	19.52 ; 14.65

SERIES B.

Haeb. pl. 87.

		<i>Obverse.</i>	<i>Reverse.</i>	
251	As	Wheel with six spokes	Head of bipennis, 	192.07 ; 175.81
252	Semis	Id.	Id.   or 	100.05 ; 87.75
253	Triens ¹	Wheel with four spokes	Id.  	Not in Haeb.
254	Quadrans	Id.	Id.  V or 	49.05 ; 41.68 <i>Pl. 21, no. 5.</i>
255	Sextans ¹	Id.	Id.  V	Not in Haeb.
256	Uncia ¹	Id.	Id.  	Not in Haeb.

1. Authenticity of nos. 253, 255 and 256 doubtful. They are described in Cat. Mus. Kirch. but here, as in several other cases, the editors seem to have filled gaps with descriptions of coins, possible in themselves, but not actually known.

SERIES C.
Haeb. pl. 86.

		<i>Obverse.</i>	<i>Reverse.</i>	
257	As	Wheel with six spokes	Krater, MI 	205.3 ; 187.31 Pl. 21, no. 6.
258	Semis	Id.	Id. 	106.85 ; 98.19
259	Triens ¹	Wheel with four spokes	Id. 	Not in Haeb.
260	Quadrans	Id.	Id. 	57.87 ; 48.86 Pl. 22, no. 1.
261	Sextans	Id.	Id. 	38.68 ; 32.05 Pl. 22, no. 2.
262	Uncia	Id.	Id. M	20.43 ; 16.77 Pl. 22, no. 3.

1. Authenticity doubtful. See note to no. 253.

ETRURIA

Circa B. C. 275-271.

Haeb. pl. 91.

Gar. pl. LIV.

		<i>Obverse.</i>	<i>Reverse.</i>	
263	As ¹	Head of augur facing, in conical hat.	Simpulum, knife, long-handled axe, crescent; 	199.63
264	Semis	Id.	Knife, axe, crescent;	95.50; 89.18
265	Triens	Id.	Id. oooo	Not in Haeb.
266	Quadrans	Id.	Id. ooo	45.16; 39.19
267	Sextans	Id.	Id. oo	37.20
268	Uncia	I .d	Id. o	18.40; 13.49 <i>Pl. 22, no. 4.</i>

1. The crescent on the reverse of these coins has been interpreted as **C**, the initial letter of Cortona, to which mint the coins are assigned by Milani, who suggests that the head on the obverse is that of Attis, priest of Cybele.

The series has also been assigned to Volsinii (Orvieto or Bolsena) the chief religious centre of Etruria.

ETRURIA
ETRURIA IN GENERE

Circa B. C. 271-268.

SERIES D.

Haeb. pl. 87.

		<i>Obverse.</i>	<i>Reverse.</i>	
269	As	Wheel with six spokes.	Amphora, 	155.40 ; 150.33
270	Semis	Id.	Id.  	83.70 ; 71.48
271	Triens	Wheel with four spokes.	Id.  	Not in Haeb.
272	Quadrans	Id.	Id.  	50.60 ; 37.58 <i>Pl. 22, no. 5.</i>
273	Sextans	Id.	Id.  	Not in Haeb.
274	Uncia	Id.	Id.  	14.50 ; 11.54

SERIES E (1).

Haeb. pl. 88, 89, 97.

		<i>Obverse.</i>	<i>Reverse.</i>	
275	Quincussis	Wheel with six spokes, 	Anchor, 	748.55 ; 707.00
276	Dupondius	Id. 	Id. 	326.91 ; 297.05
277	As	Id. 	Id. 	170.10 ; 151.38
278	Semis	Id. 	Id.  	93.54 ; 77.21
279	Triens	Wheel with five spokes, 	Id.  	56.15 ; 51.56
280	Quadrans	Id. 	Id.  	50.08 ; 39.36
281	Sextans	Id. 	Id.  	Not in Haeb.
282	Uncia	Wheel with four spokes, 	Id.  	16.24 ; 12.69

SERIES E (2).

		<i>Obverse.</i>	<i>Reverse.</i>	
283	Dupondius	Wheel with six spokes	Anchor  	286.50
284	As ¹	Id.	Id.  	136.10

1. The semis, triens and quadrans of this series described in the Cat. Mus. Kirch. cannot be verified.

SERIES F.

Circa B. C. 271-268.

Haeb. pl. 90.

		<i>Obverse.</i>	<i>Reverse.</i>	
285	Dupondius	Wheel composed of straight and crescent-shaped spokes	Similar to obv.	310.20
286	As	Id.	Id.	159.40
287	Semis	Id.	Id.	72.19
288	Triens	Wheel with crescent-shaped spokes, 	Id. 	56.25
289	Quadrans	Id. 	Id. 	(Not in Haeb.)
290	Sextans	Id. 	Id. 	24.20
291	Uncia	Id.	Id. 	15.44

SERIES G.

Haeb. pl. 91.

		<i>Obverse.</i>	<i>Reverse.</i>	
292	As	Wheel composed of straight and crescent-shaped spokes	Three crescents with dot in centre; around edge, 12 dots	149.85; 145.2 <i>Pl. 22, no. 6.</i>
293	Semis	Id.	Id. around, 6 dots.	88.05; 76.71
294	Triens	Wheel with crescent spokes	Id. around, 4 dots.	56.35; 52.12
295	Quadrans	Id.	In centre, 	44.40; 33.45
296	Sextans	Id.	Id. 	28.17; 21.45
297	Uncia	Id.	Id. 	1.530; 11.30

ETRURIA
VELATHRI-(VOLATERRAE)

SERIES I.

Haeb. pl. 82.

Circa B. C. 271-268.

Gar. pl. XLIX.

		<i>Obverse.</i>	<i>Reverse.</i>	
298	Dupondius	Young Janiform head in conical hat.	1<OAN33 in centre,	278.90 ; 276.40
299	As	Id.	Id.	181.04 ; 141.07
300	Semis	Id.	Id.)	98.10 ; 75.18 <i>Pl. 23, no. 1.</i>
301	Triens	Id.	Id. oooo	55.75 ; 46.06 <i>Pl. 23, no. 2.</i>
302	Quadrans	Id.	Id. ooo	49.00 ; 35.09
303	Sextans	Id.	Id. oo	42.15 ; 25.19
304	Uncia	Id.	Id. o	19.50 ; 13.63 <i>Pl. 23, no. 3.</i>

SERIES II.

Haeb. pl. 83, 84.

Gar. pl. XLVIII.

Types similar to series I, but with *club* and marks of value on reverse throughout.

		<i>Obverse.</i>	<i>Reverse.</i>	
305	Dupondius	Janiform head.	1<OAN33, club	303.70 ; 276.15
306	As	Id.	Id. »	167.35 ; 138.46 <i>Pl. 23, no. 4.</i>
307	Semis	Id.	Id.) »	84.25 ; 67.64 <i>Pl. 23, no. 5.</i>
308	Triens	Id.	Id. oo oo »	64.70 ; 50.23
309	Quadrans	Id.	Id. o o »	48.80 ; 37.64 <i>Pl. 23, no. 6.</i>
310	Sextans	Id.	Id. oo »	40.37 ; 28.68
311	Uncia	Id.	Id. o »	21.40 ; 15.63.

SERIES III.
Haeb. pl. 84.
Gar. pl. XLVII.

		<i>Obverse.</i>	<i>Reverse.</i>	
312	Dupondius	Janiform head.	In centre, 140- ANEF, 1 dolphin	267.93 ; 252.20 Pl. 24, no. 1.
313	As	Id.	Id. 1 »	148.72 ; 132.37 Pl. 24, no. 2.
314	Semis	Id.	Id. 2 »	74.19 ; 66.71 Pl. 24, no. 3.

(No other denominations of this series are known.)

CENTRAL ITALY

COINS OF UNCERTAIN ATTRIBUTION

Circ B. C. 290-275.

M M

Haeb. pl. 68 (Lat-Camp).

		<i>Obverse.</i>	<i>Reverse.</i>	
315	Biunx or Sextans ¹	Head of boar r., 	Head of boar r., M	62.66 ; 56.59 <i>Pl. C, no. 5.</i>
316	Uncia ¹	Corn-grain ; above, M , below, o M	Star with 8 rays.	32.17 ; 28.77
317	As ²		Similar to obv.	367.35 Haeb. Etr. 92
318	Semis(or Quincunx ?) ²	Head of ram r.	Oblong object (uncertain) Club (?)	137.20 Haeb. id.
318a	Triens	Eagle's head r.	Eagle's wing oooo	86.64 (Unique. Sambon Coll. see H. p. 95, 10). <i>Pl. C, no. 2.</i>
319	Quadrans	Shell ? or corn-grain, oo	Star with 16 rays.	108.75 ; 98.32 Haeb. Lat. 67
320	Sextans (?)	Crescent 	Knuckle-bone.	40.30 Haeb. pl. 69 (Lat-Camp).

1. Possibly a joint issue of two mints, of which the letters, **M M** are initials. These cannot be identified other than conjecturally — perhaps Nepete and Sutrium (see p. 73) ; but the types, boar's head and star, appear characteristic of Apulia rather than Latium-Campania or Etruria.

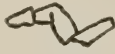
2. Assigned by Haebelin to Tarquinii.

CENTRAL ITALY

COINS OF UNCERTAIN ATTRIBUTION

Circa B. C. 275-268.

Haeb. pl. 69 (Lat-Camp).

		<i>Obverse.</i>	<i>Reverse.</i>	
321	Uncia ¹	Spear-head, 	o spear-head 	19.70
322	Uncia	Jugum (?) 	o in crescent (?) or 2 corn-grains 	21.30
323	Uncia ²	Foot 	o in crescent 	18.02
324	Uncia (?)	Medusa head, facing.	Similar to obv.	16.19
325	Uncia ³	Crescent.	(plain)	21.70
326	Uncia	Male head l.	Wheel. 	13.10
327	Semuncia	Head l., diademed.	Wine skin (?)	10.58 ; 8.56
328	Semuncia	Two-handled vase, 	Uncertain device.	11.50
329	Semuncia	Frog or lizard.	Crescent 	10.0 ; 8.13
330	Semuncia	Helmet r.	Uncertain object (H., pl. 97)	3.90

1. Although this and the following 9 coins are assigned by Haebert to Latium-Campania, their crudeness of type and style suggest that they belong to districts further removed from Roman influence, such as Umbria or Apulia.

2. Types related to Hatria and Vestini.

3. Type common to several Apulian mints.

BARBAROUS COINS

Circa B. C. 271-268.

SERIES I.

Haeb. pl. 69.

		<i>Obverse.</i>	<i>Reverse.</i>	
331	Triens	Radiate head of Sol facing. 	Horse's head l., 	53.52 ; 49.36
332	Sextans	Id. 	Horse's head l.,  CE	27.2 ; 22.25
333	Uncia	Id.	Horse's head r.,  CE	19.3 ; 16.20
SERIES II.				
		<i>Obverse.</i>	<i>Reverse.</i>	
334	Triens ¹	Head of Janus, 	Elephant l. ; in ex., 	42.44 ; 38.17
335	Quadrans	Male head r. ; behind, 	Id. in ex., 	30.5 ; 21.64
336	Sextans	Id., behind, 	Id. in ex., 	18.3
337	Uncia	Id., behind, 	Dolphin ; below, 	10.51 <i>Pl. 24, no. 4.</i>
338	Semuncia	Head of Sol facing.	Horse's head l., 	6.74

- 1. The reverse type is perhaps an allusion to the war against Pyrrhus ; but as the coins cannot very well be earlier than B. C. 271, the reference must be to his defeat. Whether the "Elephant" type was ever used by supporters of Pyrrhus in Italy, as Comparette suggests in the case of the bronze "brick", no. 9., appears extremely doubtful.

BARBAROUS COINS

Circa B. C. 268-260.

SERIES III.

Haeb. pl. 69.

		<i>Obverse.</i>	<i>Reverse.</i>	
339	Semis	Two nude figures standing, their hands resting on each other's shoulders. At side, oooooo	Two crescents, each enclosing a star ; oooooo	42.9 ; 41.67
340	Triens	Id. oooo	Id. oooo	30.22 ; 27.64
341	Quadrans	Id. ooo	Id. ooo	22.34
342	Sextans	Id. oo	Id. oo	16.28 ; 15.48
343	Uncia	Id. o	Id. o	14.1 ; 12.96 <i>Pl. 24, no. 5.</i>
344	Semuncia	Id.	Two crescents, no stars)	5.25 ; 4.27
SERIES IV.				
		<i>Obverse.</i>	<i>Reverse.</i>	
345	Semis ¹	Radiate bust of Sol facing. At side, oooooo	Crescent and star, oooooo	36.65 ; 35.09
346	Triens	Id. oooo	Id. oooo	25.84 —
347	Quadrans	Id. ooo	Id. ooo	18.22 ; 16.83 <i>Pl. C. no. 6.</i>
348	Sextans	Id. oo	Id. oo	11.75 —

1. Cf. Latium-Campania, *Uncia*, no. 122. This series has been assigned to Velecha by Haeberlin. Cf. Sambon, *Les monnaies antiques de l'Italie*, p. 414.

SUPPLEMENT

		<i>Obverse.</i>	<i>Reverse.</i>	
349	Tressis or Tri- pondius	Head of Apollo l. (or possibly a woman); hair falling in ring- lets over shoul- der.	Head of antelope l.	906.05 (Berlin) Haeb, A. G. p. 280.

This piece appears to have no relation to any other known examples of Aes Grave. That it is genuinely ancient may be doubted. It may be mentioned, however, that numerous bronze ornaments in the form of antelopes' heads, similar to that on the coin, have been found in the neighbourhood of Perugia.

APPENDED NOTES

A

The relation of the Denarius to the As in B.C. 268.

On this somewhat vexed question the following view, based on the evidence of Pliny, may be suggested as an alternative to that given on p. 37.

"Argentum signatum est anno urbis cccclxxxv, Q. Ogulnio, C. Fabio coss. quinque annis ante primum bellum Punicum. Et placuit denarium pro decem libris aeris, quinarium pro quinque, sestertium pro dupondio ac semisse. Librale autem pondus aeris imminutum bello Punico primo, cum impensis respublica non sufficeret : constitutumque ut asses sextantario pondere ferirentur."

Here Pliny makes it clear that the denarius and sextantal As were not introduced simultaneously. But while Pliny's date for the denarius is generally accepted, several of our modern numismatists reject his date for the sextantal As. It may be pointed out, however, that to urge that sextantal Asses were struck simultaneously with the denarius in B.C. 268, as part of a sweeping monetary reform, is to import a modern conception of the fitness of things into an age of transition and experiment, when ideals only materialised slowly and when, in the development of their coinage, as in most other things, the Romans acted in accordance with expediency rather than principle.

The Aes Grave, which prior to B.C. 268 was Rome's only coinage, was not swept away by a single edict ; and, as we have shown, several issues of struck coins were necessary before the cast pieces were finally superseded. To have inaugurated a bi-metallic struck coinage in B.C. 268 would obviously have been the ideal thing to do. But the very fact that Pliny seems to go out of his way to state that the obviously ideal thing did not happen, and that sextantal Asses were not struck till about a quarter of a century after the silver, gives the ring of truth to his statement.

In the second place, Pliny implies that there were no intermediate weight-standards between the Libral and the Sextantal. Although taken literally this seems to conflict with the evidence of coins, it may be true in a legal or technical sense, since in all probability no other standards were officially recognised by the Roman government. Thus the As, which *represented* but never actually *weighed* a Libra, may have continued to do so even when its weight had fallen below three ounces, until the time of the First Punic War (probably B.C. 242) when the sextantal standard was officially recognised.

The state of the Roman currency in B.C. 268 may be described as follows. Asses, nominally *libral* but actually of various weights, circulated side by side ; each As

being worth a tenth of a denarius. It is, therefore, technically true to say that a denarius was worth ten libral Asses. "Placuit denarium pro decem libris aeris."

This, however, does not imply that in B.C. 268 silver was rated at 720 times the value of bronze. Not only is this manifestly improbable, but numismatic evidence shows that the value of silver relative to bronze must have been approximately as 1 : 144. (Cf. p. 57 f.) Thus the lightest Asses represented the current value of bronze relative to silver, whereas the old heavy Asses that remained in circulation would have passed at a discount. In B.C. 268 Libral Asses, notwithstanding their greater intrinsic worth, had in all probability no greater purchasing power than the reduced coins.

A more or less parallel state of affairs exists in Italy to-day, where the old ten-centesimi pieces weighing 153.0 grs. circulate side by side with the new ten-centesimi pieces of 83.5 grs. ; and although intrinsically more valuable, the older coin has no greater purchasing power than the newer one. Each in currency is worth one tenth of a nickel Lira.

B

The remarkable "Trade-weight", illustrated on plate A, No. 1, was included in the Sambon collection of Aes Grave. Its weight, 2354.58 gms. (= 36496 grs.) indicates a unit of about 785 gms. (= 12165 grs.). This does not correspond with any of the known coin standards of Italy, but probably belongs to an Eastern system adapted for commercial purposes. "The standard weight of the Aeginetan system was the heavy *mina* of 9722 grs. (about 1.4 lb. avoirdupois). The Solonian (Euboic *mina* weighed normally 6737 grs. (nearly 1 lb. avoirdupois), but there was a special heavy *mina* in use which weighed exactly double the normal." (A.H. Smith, "B.M. Guide to Greek and Roman life").

Three Aeginetic minae would weigh 29166 grs. and three of the heavy Solonian standard would weigh 40422 grs. Perhaps the bronze weight in question represents a modification of the latter, but as local commercial weights vary considerably from the norm, it is in the majority of cases impossible to determine to what particular standard they belong.

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KEY TO PLATES

PLATE 1 Bronze brick, No. 8, Obv. p. 15 (W)¹.

PLATE 2 Bronze brick, No. 8, Rev. p. 15 (W).

PLATE 3 (1) ROMA. As No. 1 (W).
(2) Semis, No. 3 (W).
(3) Triens, No. 4 (W).
(4) Quadrans, No. 5 (W).
(5) Sextans, No. 6 (W).
(6) Uncia, No. 7 (W).

PLATE 4 (1) ROMA. As, No. 8 (W).
(2) As, No. 25 (R).
(3) Semis, No. 27 (R).
(4) Triens, No. 28 (W).

PLATE 5 (1) ROMA. As, No. 26 (W).
(2) Sextans, No. 23 (W).
(3) Uncia, No. 24 (W).
(4) Triens, No. 20 (W).
(5) Sextans, No. 32 (W).

PLATE 6 (1) CAMPANIA (B1). Semis, No. 37 (W).
(2) Triens, No. 38 (W).
(3) Quadrans, No. 39 (W).
(4) (B2). As, No. 49 (R).

1. The letters in brackets indicate the collections from which the coins are taken; i.e., W = Weber, R = Rome sale (1921), S = Sambon. The reference numbers are to the Corpus.

- PLATE 7 (1) CAMPANIA (B2). Semis, No. 50 (W).
 (2) Triens, No. 51 (W).
 (3) Quadrans, No. 52 (W).
 (4) Sextans, No. 53 (W).
 (5) Uncia, No. 54 (W).
- PLATE 8 (1) CAMPANIA (C). As, No. 43 (W).
 (2) Sextans, No. 47 (W).
- PLATE 9 (1) CAMPANIA (D1) As, No. 62 (W).
 (2) Semis, No. 63 (W).
 (3) Sextans, No. 66 (W).
 (4) Uncia, No. 67 (W).
- PLATE 10 (1) CAMPANIA (D2). As, No. 70 (R).
 (2) Semis, No. 71 (W).
 (3) Triens, No. 72 (W).
 (4) Uncia, No. 75 (W).
- PLATE 11 (1) CAMPANIA (E). *Cales*. Quadrans, No. 80 a (W).
 (2) Uncia, No. 82 (R).
 (3) Semuncia, No. 83 (R).
 (4) CAMPANIA (F). As, No. 86 (R).
 (5) Semis, No. 87 (R).
- PLATE 12 (1) CAMPANIA (F). Triens, No. 88 (W).
 (2) Quadrans, No. 89 (R).
 (3) Sextans, No. 90 (W).
 (4) CAMPANIA (Struck coins). Triens, No. 119 (W).
 (5) Sextans, No. 121 (W).
 (6) Uncia, No. 122 (W).
 (7) Sextans or Semuncia
 (8) id. } see p. 93 n.
 (9) Uncia or Quartuncia }
- PLATE 13 (1) LATIUM-CAMPANIA. As, No. 95 (W).
 (2) Semis, No. 103 (R).
 (3) Sextans, No. 111 (W).
 (4) Uncia, No. 112 (W).

- (5) Sextans, No. 110 (R).
- (6) Uncia, No. 113 (R).
- (7) Uncia, No. 117 (R).
- (8) Uncia, No. 114 (W).

- PLATE 14 (1) APULIA-LUCERIA. Quincunx, No. 125 (R).
- (2) Quatrunx, No. 126 (R).
 - (3) Teruncius, No. 127 (R).
 - (4) Biunx, No. 128 (R).
 - (5) Uncia, No. 129 (R).
 - (6) As, No. 134 (R).

- PLATE 15 (1) APULIA-LUCERIA. As, No. 137 (W).
- (2) Quincunx, No. 138 (W).
 - (3) Quatrunx, No. 139 (W).
 - (4) Teruncius, No. 140 (W).
 - (5) Uncia, No. 142 (W).
 - (6) Semuncia, No. 143 (W).
 - (7) As, No. 144 (R).
 - (8) Semis, No. 145 (R).
 - (9) Triens, No. 147 (W).
 - (10) Uncia (see p. 64) (W).

- PLATE 16 (1) APULIA-VENUSIA. As, No. 153 (R).
- (2) Sextans, No. 155 (W).
 - (3) Teruncius, No. 157 (W).
 - (4) Biunx, No. 158 (R).
 - (5) Teruncius, No. 160 (W).
 - (6) Biunx, No. 161 (W).
 - (7) Uncia, No. 162 (W).

- PLATE 17 (1) APULIA-ASCULUM (?). Uncia, No. 165 (R).
- (2) APULIA IN GENERE. Quatrunx, No. 173 (R).
 - (3) Teruncius, No. 176 (R).
 - (4) PICENUM-HATRIA. Quincunx, No. 184 (W).

- PLATE 18 (1) PICENUM-HATRIA. As, No. 180 (W).
- (2) Quatrunx, No. 186 (W).
 - (3) Teruncius, No. 188 (R).

- (4) Biunx, No. 189 (R).
(5) Semuncia, No. 193 (W).

- PLATE 19 (1) VESTINI. Semuncia, No. 199 (R).
(2) UMBRIA-SENA GALLICA. Teruncius, No. 204 (R).
(3) Biunx, No. 205 (R).
(4) Uncia, No. 206 (R).
(5) Semuncia, No. 207 (R).

- PLATE 20 (1) UMBRIA-TUDER. Triens, No. 210 (W).
(2) Sextans, No. 213 (R).
(3) Uncia, No. 215 (R).
(4) Semis, No. 219 (W).
(5) Triens, No. 221 (W).
(6) Quadrans, No. 224 (W).
(7) Sextans, No. 225 (W).
(8) Uncia, No. 226 (W).

- PLATE 21 (1) UMBRIA-IGUVIUM. Semis, No. 228 (R).
(2) Uncia, No. 238 (R).
(3) (Oval coin). Sextans, No. 243 (W).
(4) ETRURIA (A). Sextans, No. 249 (R).
(5) (B). Quadrans, No. 254 (R).
(6) (C). As, No. 257 (R).

- PLATE 22 (1) ETRURIA (C). Quadrans, No. 260 (R).
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(4) "Augur's head". Uncia, No. 268 (R).
(5) (D). Quadrans, No. 272 (R).
(6) (G). As, No. 292 (W).

- PLATE 23 (1) VOLATERRAE (i). Semis, No. 300 (R).
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(6) Quadrans, No. 309 (R).

- PLATE 24 (1) VOLATERRAE (iii). Dupondius, No. 312 (R).
 (2) As, No. 313 (R).
 (3) Semis, No. 314 (R).
 (4) CENTRAL ITALY. Uncia, No. 337 (R).
 (5) Uncia, No. 343 (R).

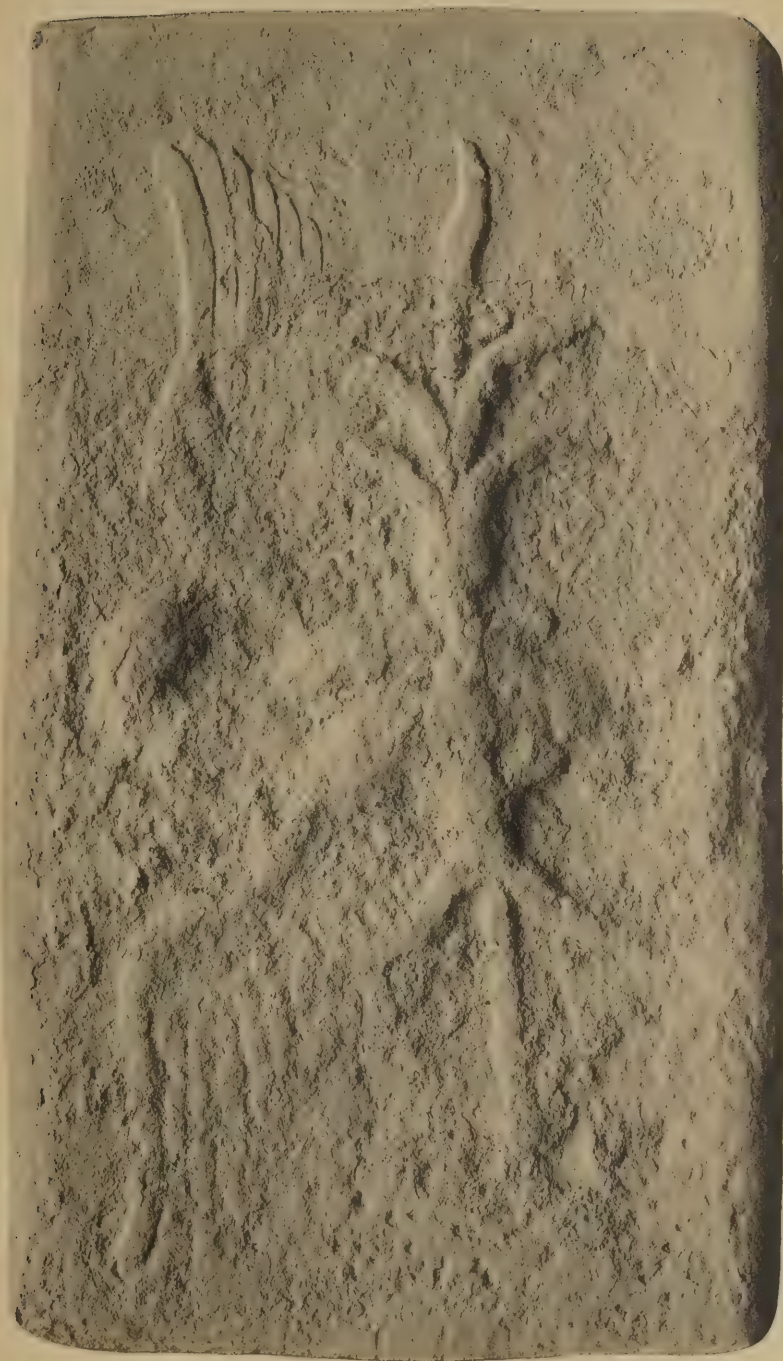
SUPPLEMENTARY PLATES

- PLATE A. (1) Bronze Trade weight, 2354.58 gms. see Appendix B.
 (2) Bronze Disk, 1470.0 gms. (S). See pp. 11 and 72.

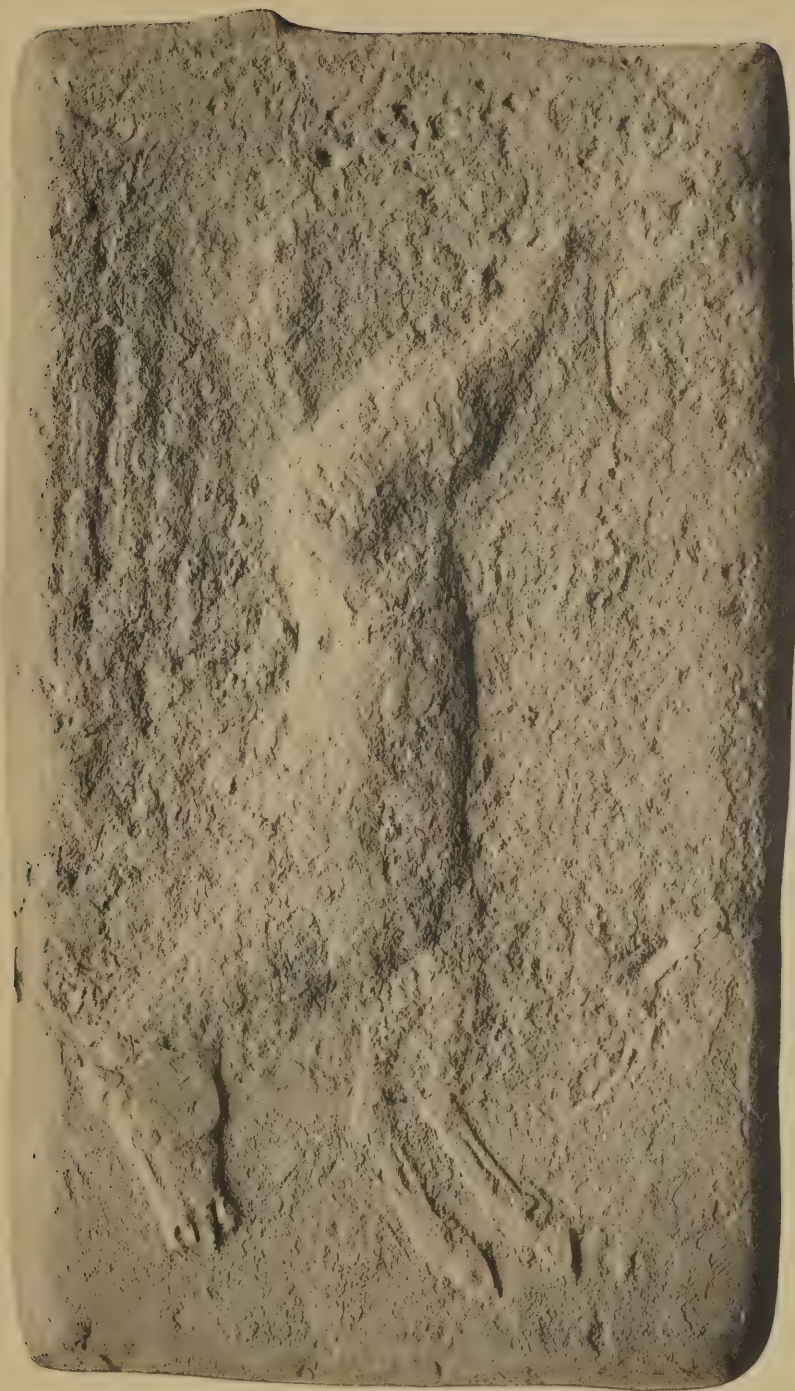
- PLATE B. CAMPANIA (F). Tripondius, No. 84 (S). Wt., 834.0 gms.

- PLATE C. (1) APULIA IN GENERE. Quatrunx, No. 172 (S).
 (2) CENTRAL ITALY. Triens, No. 318 a (S).
 (3) LATIUM-CAMPANIA. Quadrans, No. 107 (S).
 (4) APULIA IN GENERE. Biunx, No. 174 (S).
 (5) NEPETE and SUTRIUM (?). Sextans, No. 315 (S).
 (6) VELECHA (?). Quadrans, No. 347 (S).
 (7) LUCERIA. Quatrunx, No. 126 (S).

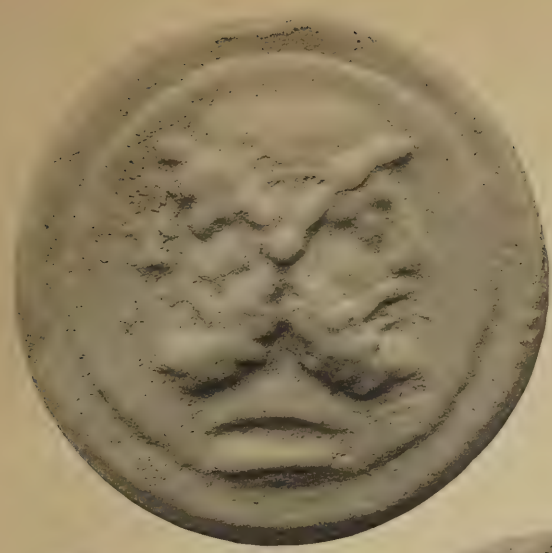
- PLATE D. (1) PICENUM-FIRMUM. Teruncius, No. 194 (S).
 (2) UMBRIA-SENA GALLICA. Biunx, No. 205 (S).
 (3) UMBRIA-IGUVIUM (i). Quadrans, No. 230 (S).
 (4) Sextans, No. 231 (S).
 (5) IGUVIUM (ii). As, No. 233 (S).
 (6) Quadrans, No. 236 (S).



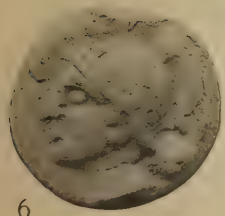
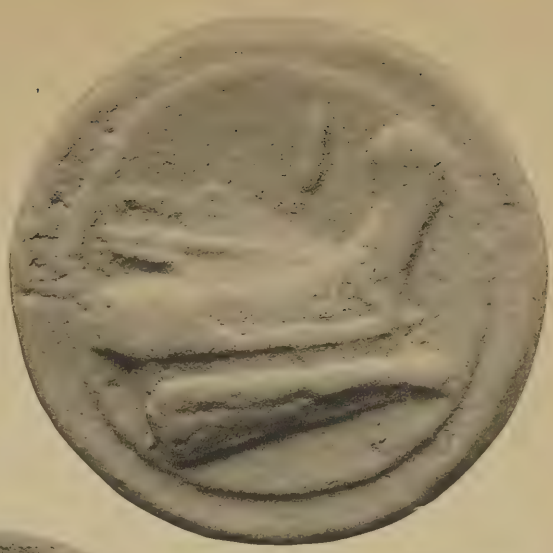
"AES SIGNATUM" — Bronze Brick, No 8. (Obv.)



"AES SIGNATUM" — Bronze Brick, No 8. (Rev.)



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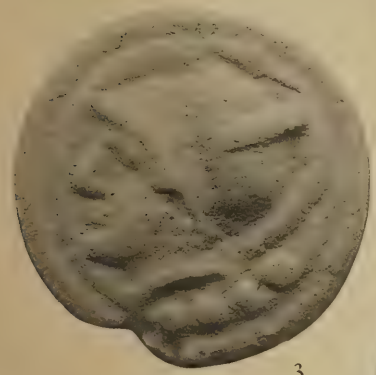
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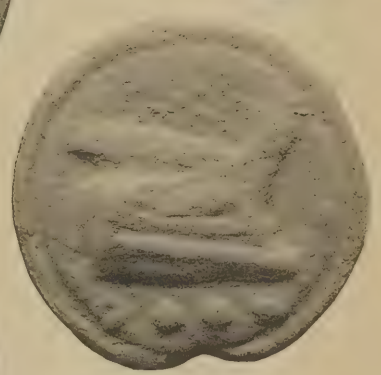
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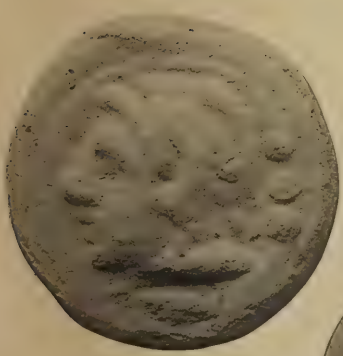
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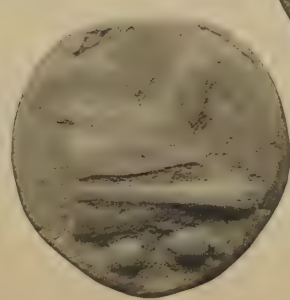
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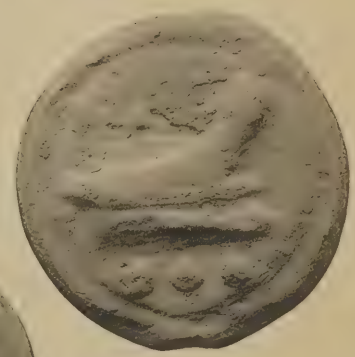
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ROMA. — Series II
Series III



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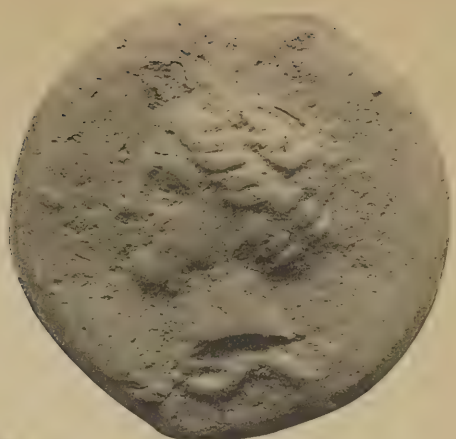
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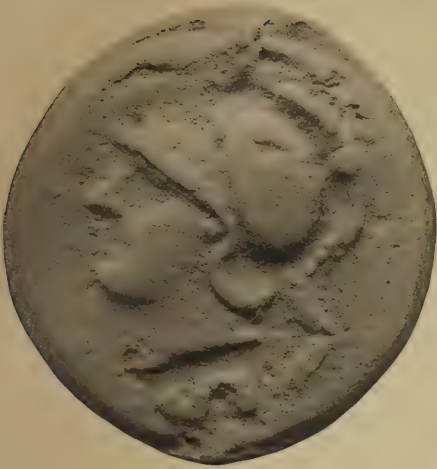
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CAMPANIA. — Series B (1)
Series B (2)



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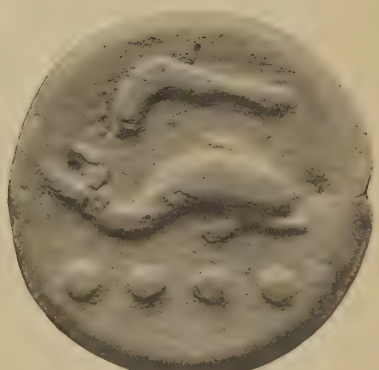
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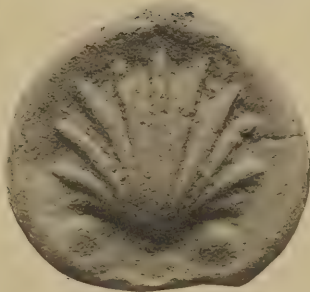
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CAMPANIA. — Series B (2)



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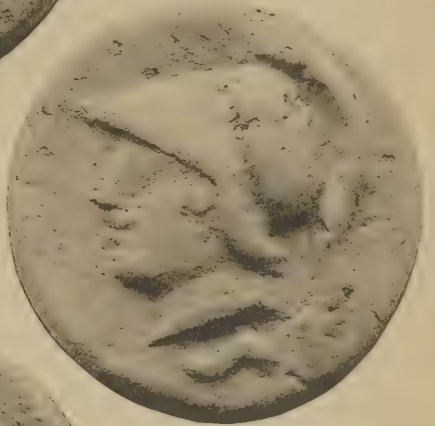
CAMPANIA. — Series C.



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CAMPANIA. — Series D (1)



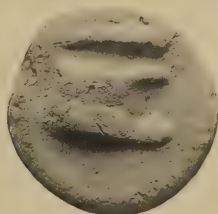
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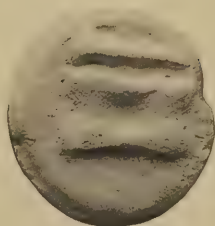
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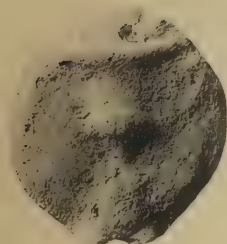
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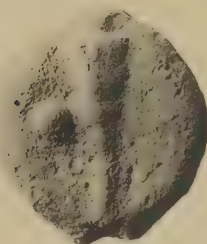
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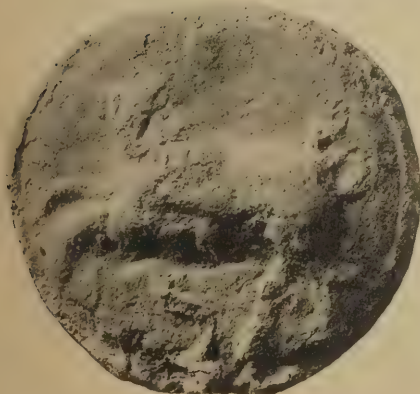
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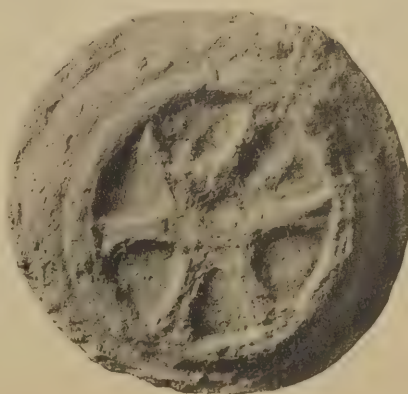
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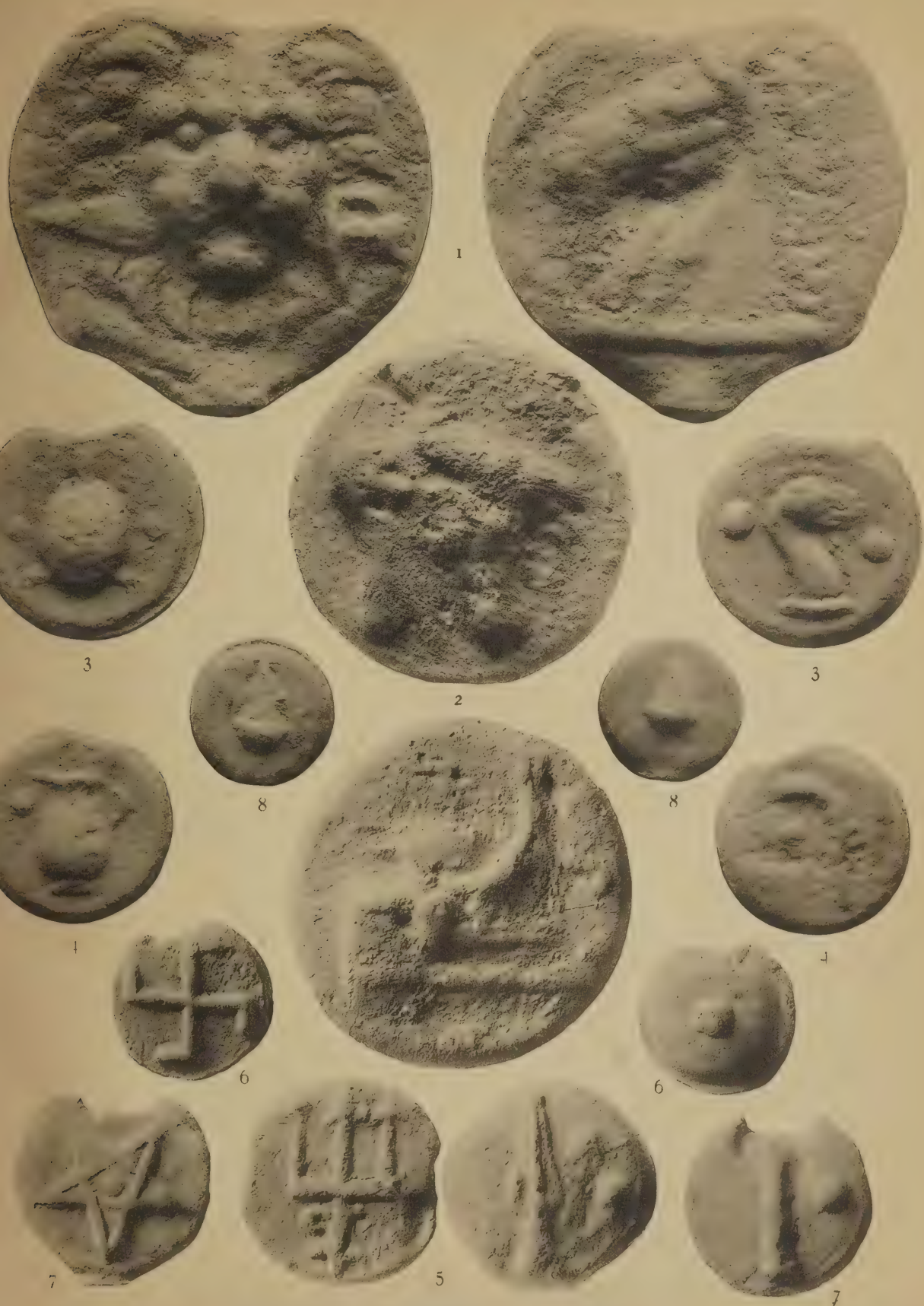
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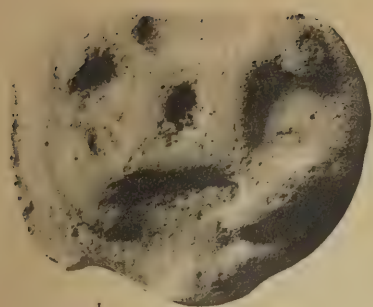
CAMPANIA. — Series E.
Series F.



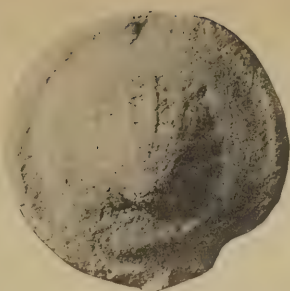
CAMPANIA. — Series F (Contd.)
Struck coins.



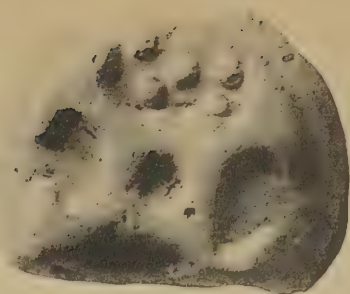
LATIUM-CAMPANIA. — Uncertain.



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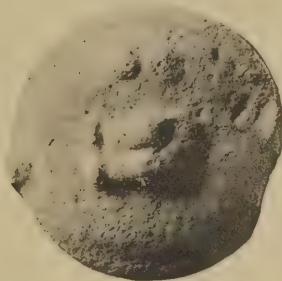
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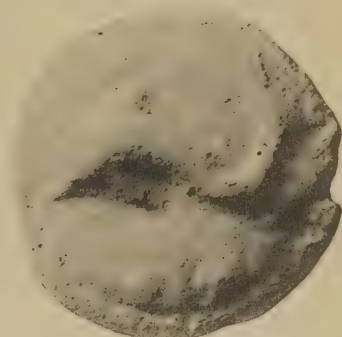
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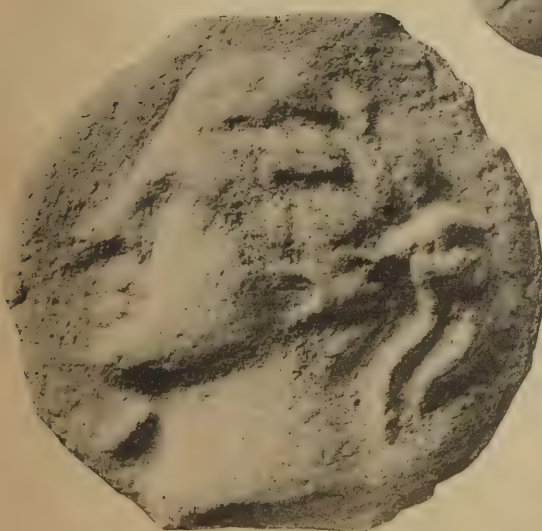
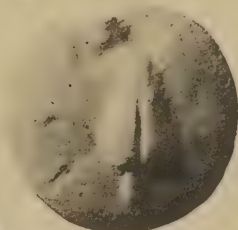
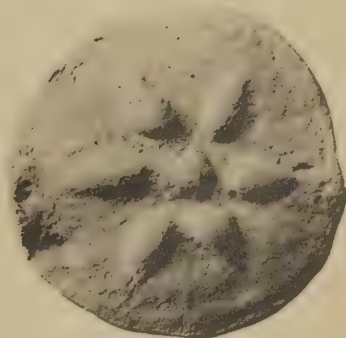
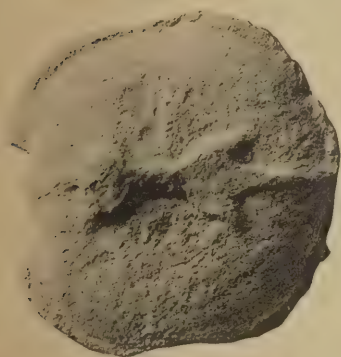
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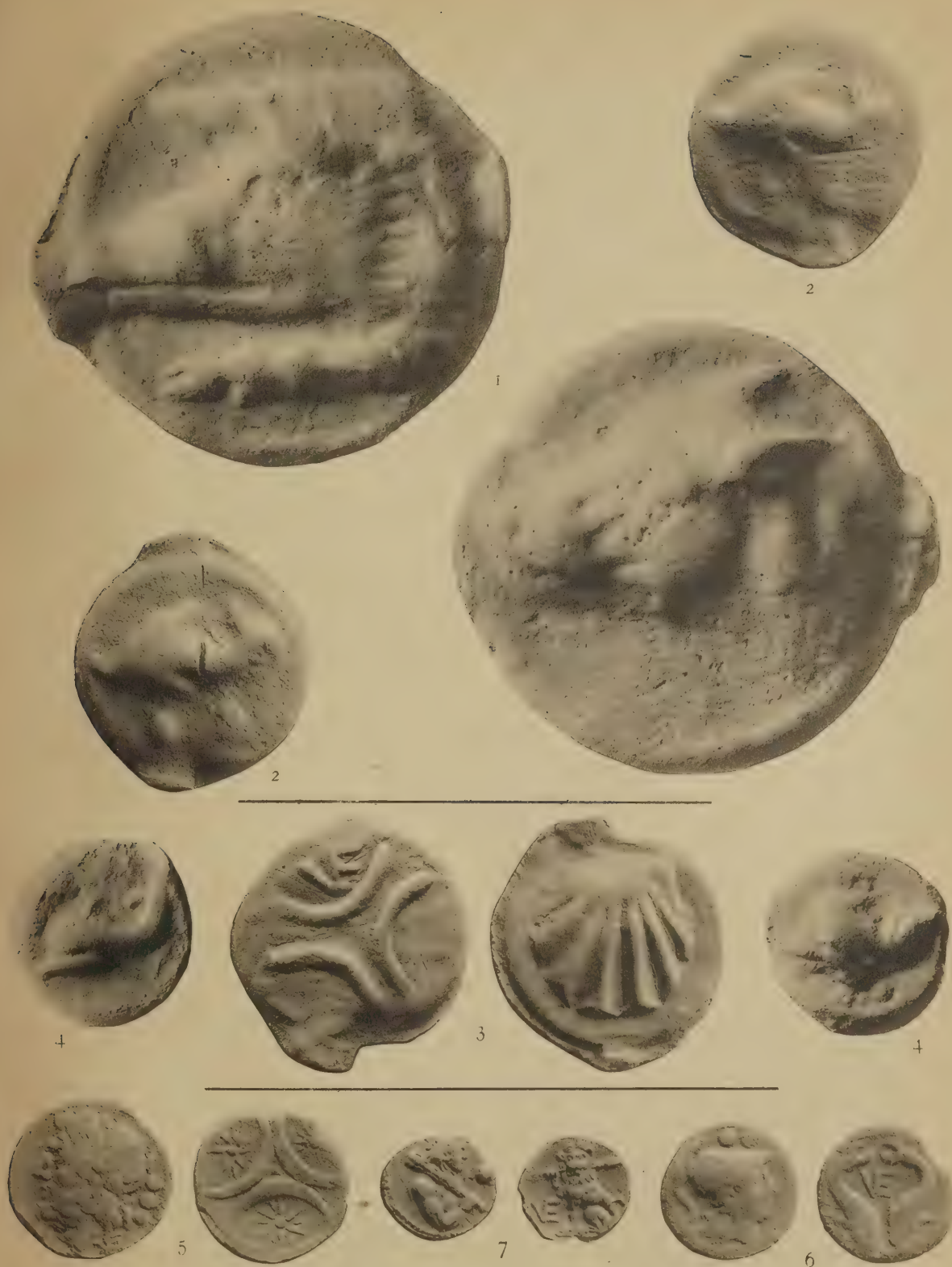


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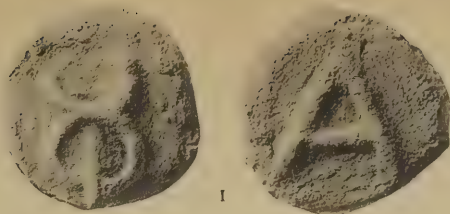


APULIA. LUCERIA. — Series II
Series III

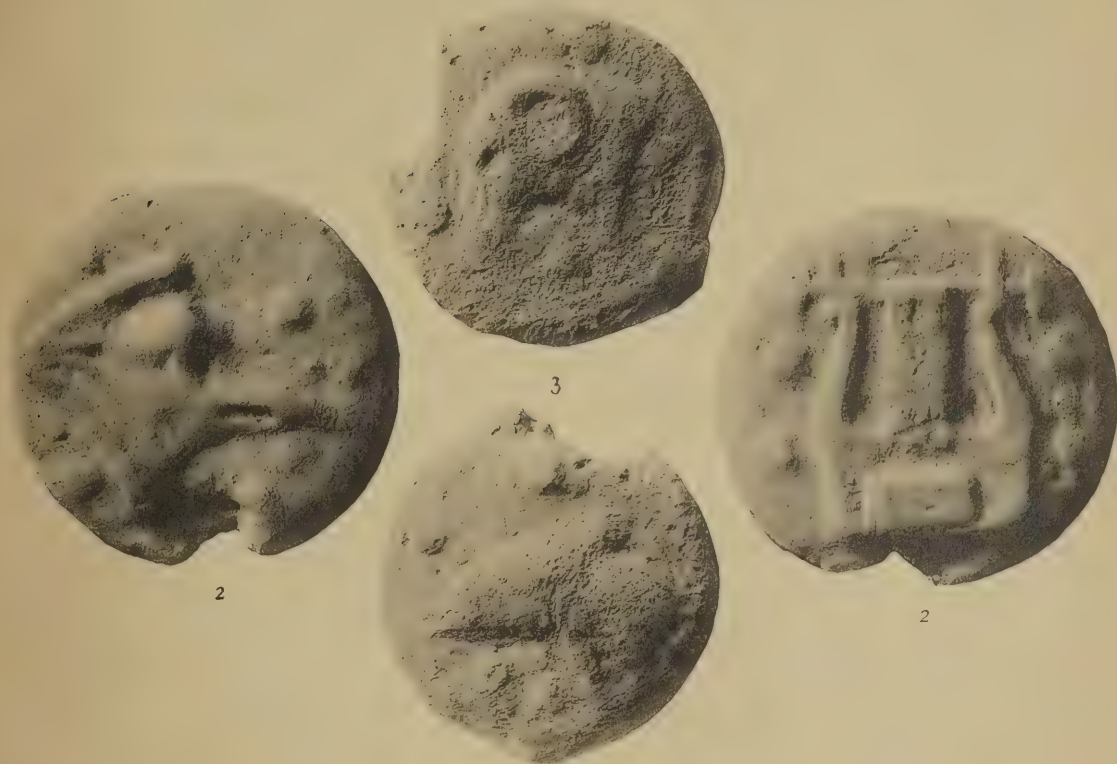


APULIA. VENUSIA. — Series I
Series II
Struck coins.





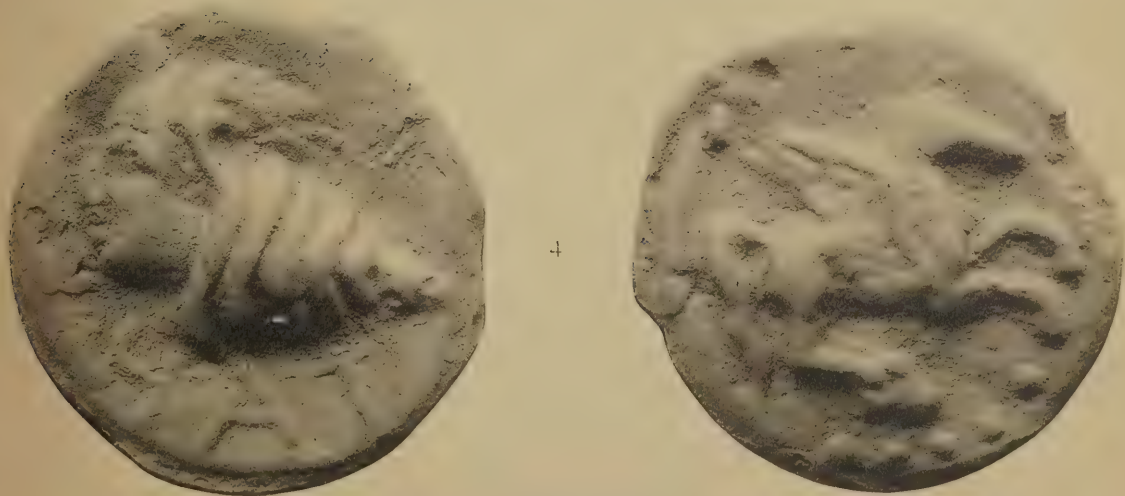
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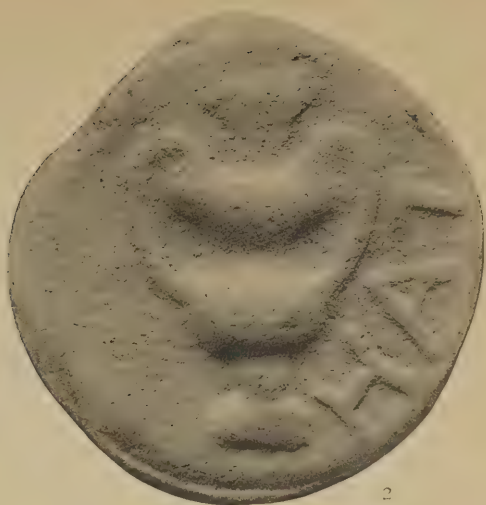


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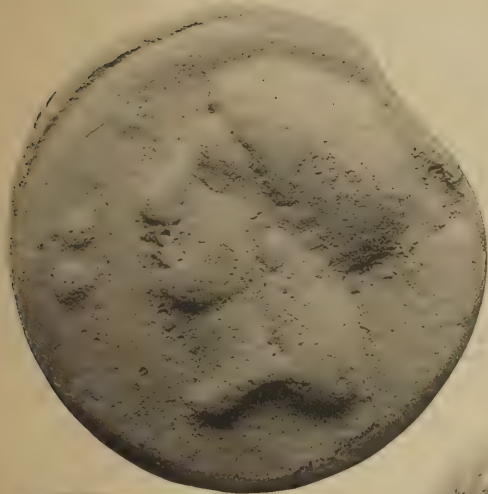
APULIA. ASCULUM (?)
APULIA IN GENERE.
PICENUM. HATRIA.



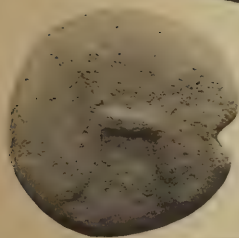
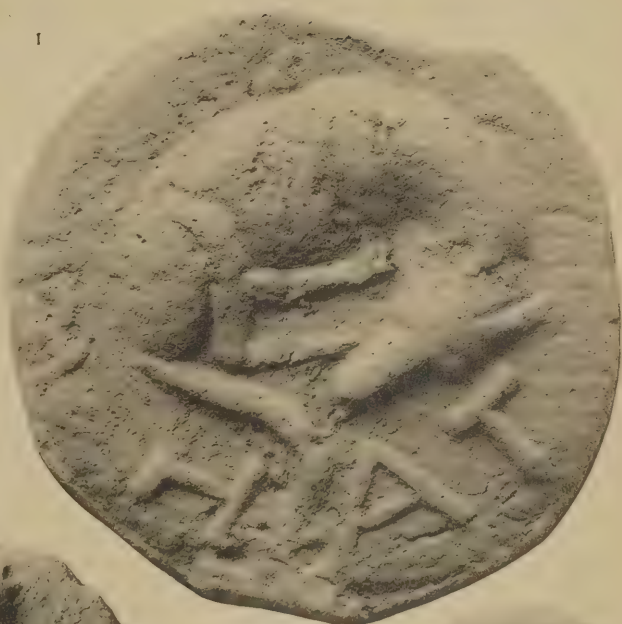
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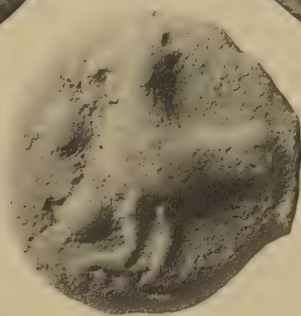
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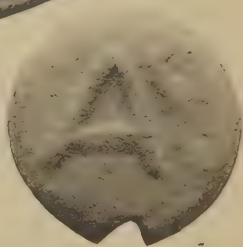
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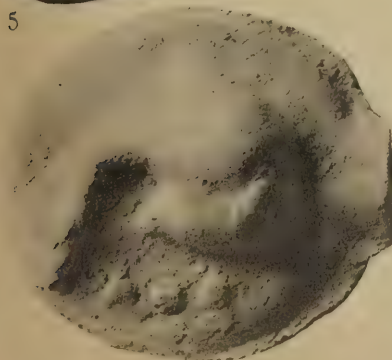
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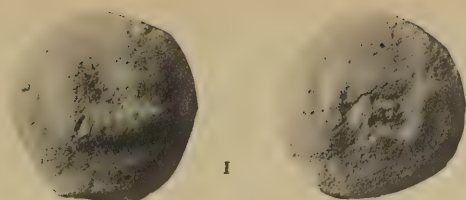
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VESTINI
UMBRIA. - SENA GALLICA.



I



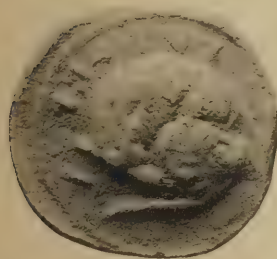
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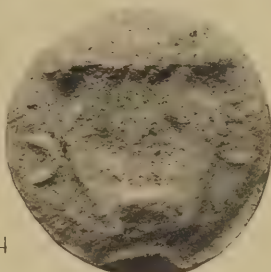
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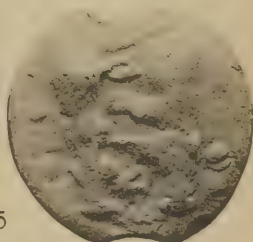
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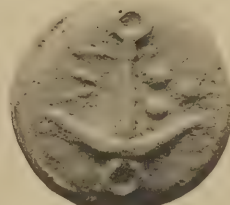
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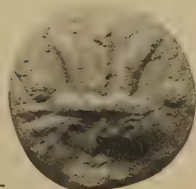
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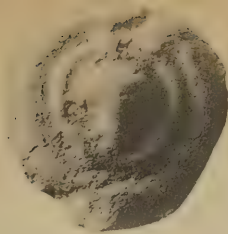
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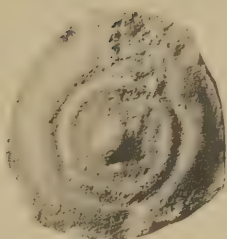
UMBRIA. TUDER. — Series I
Series II



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2



1



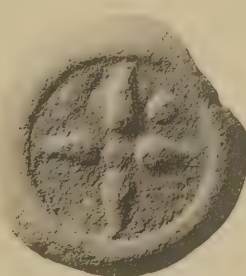
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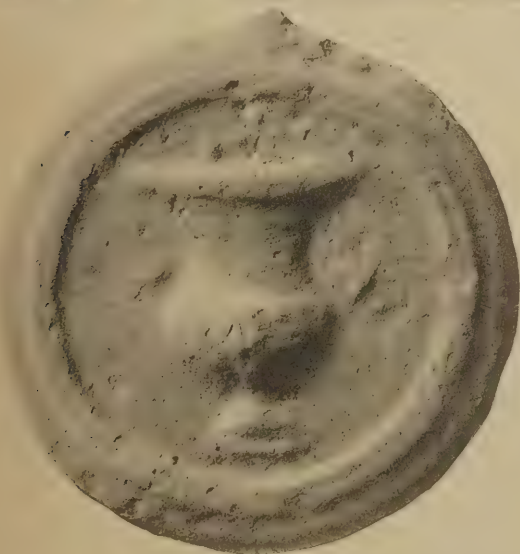
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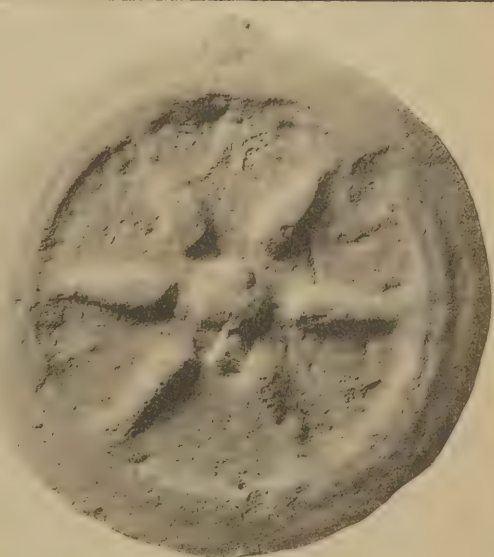
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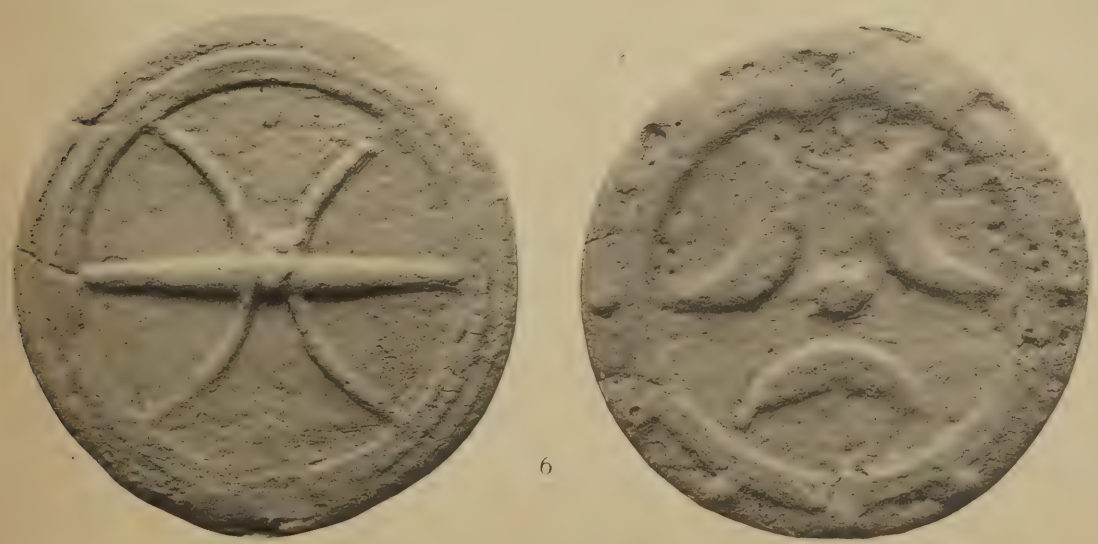


UMBRIA. IGUVIUM.

Oval coins.

ETRURIA. — Series A and B.

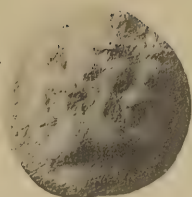
Series C.



ETRURIA. — Series C (Contd)
 "Augur's head" and Series D.



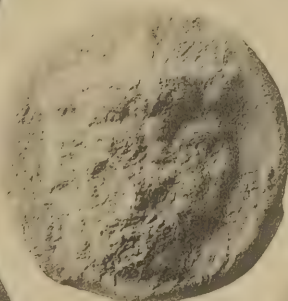
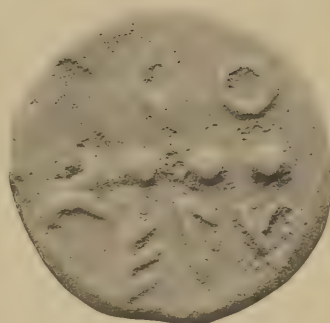
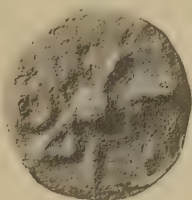
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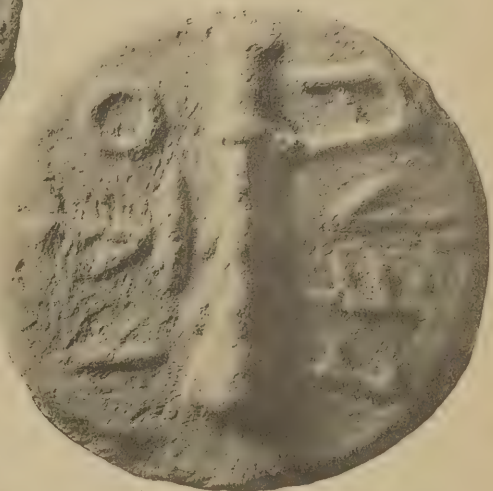
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ETRURIA. VOLATERRAE. — Series I
Series II



I



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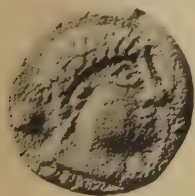
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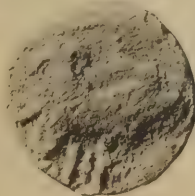
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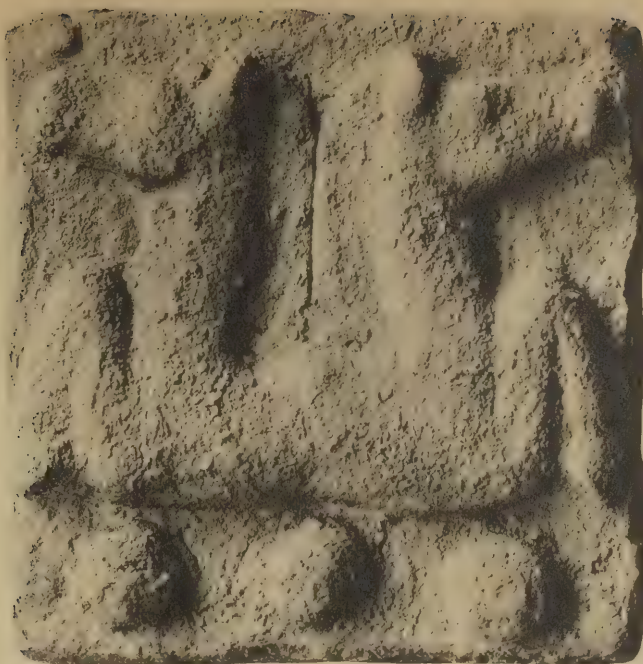


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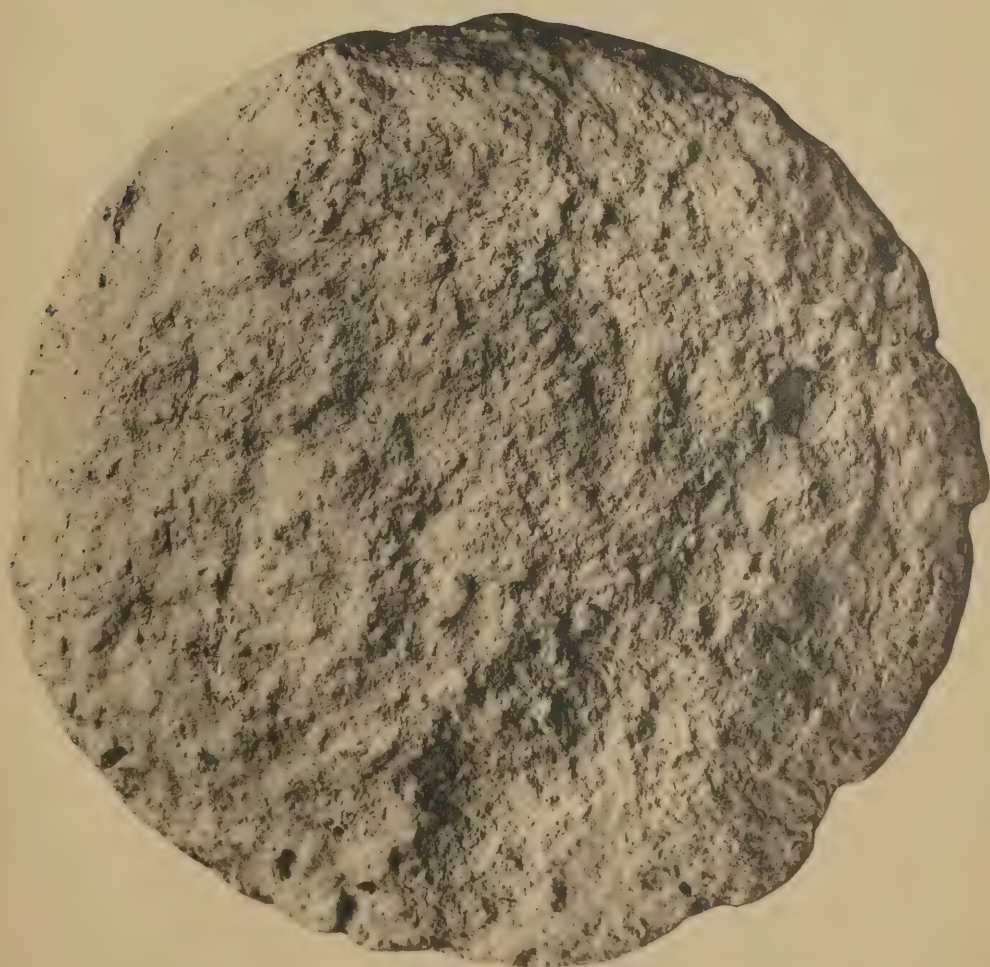


ETRURIA. VOLATERRAE. — Series III

CENTRAL ITALY. — Barbarous coins.

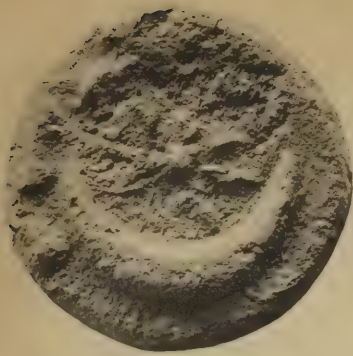


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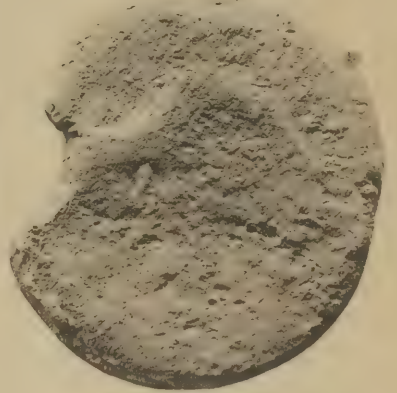
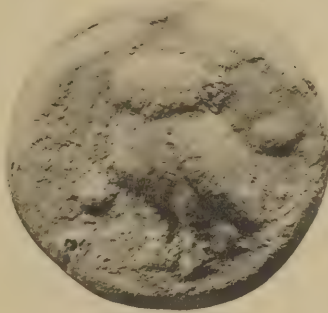
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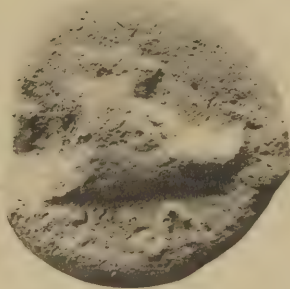
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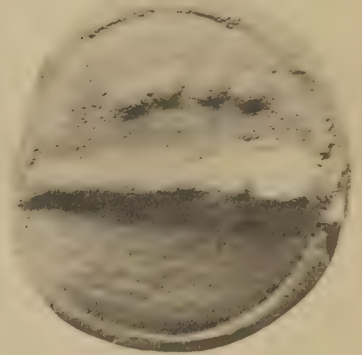
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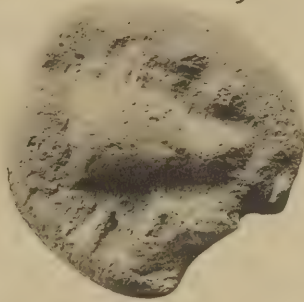
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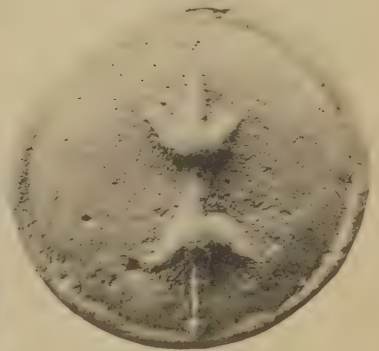
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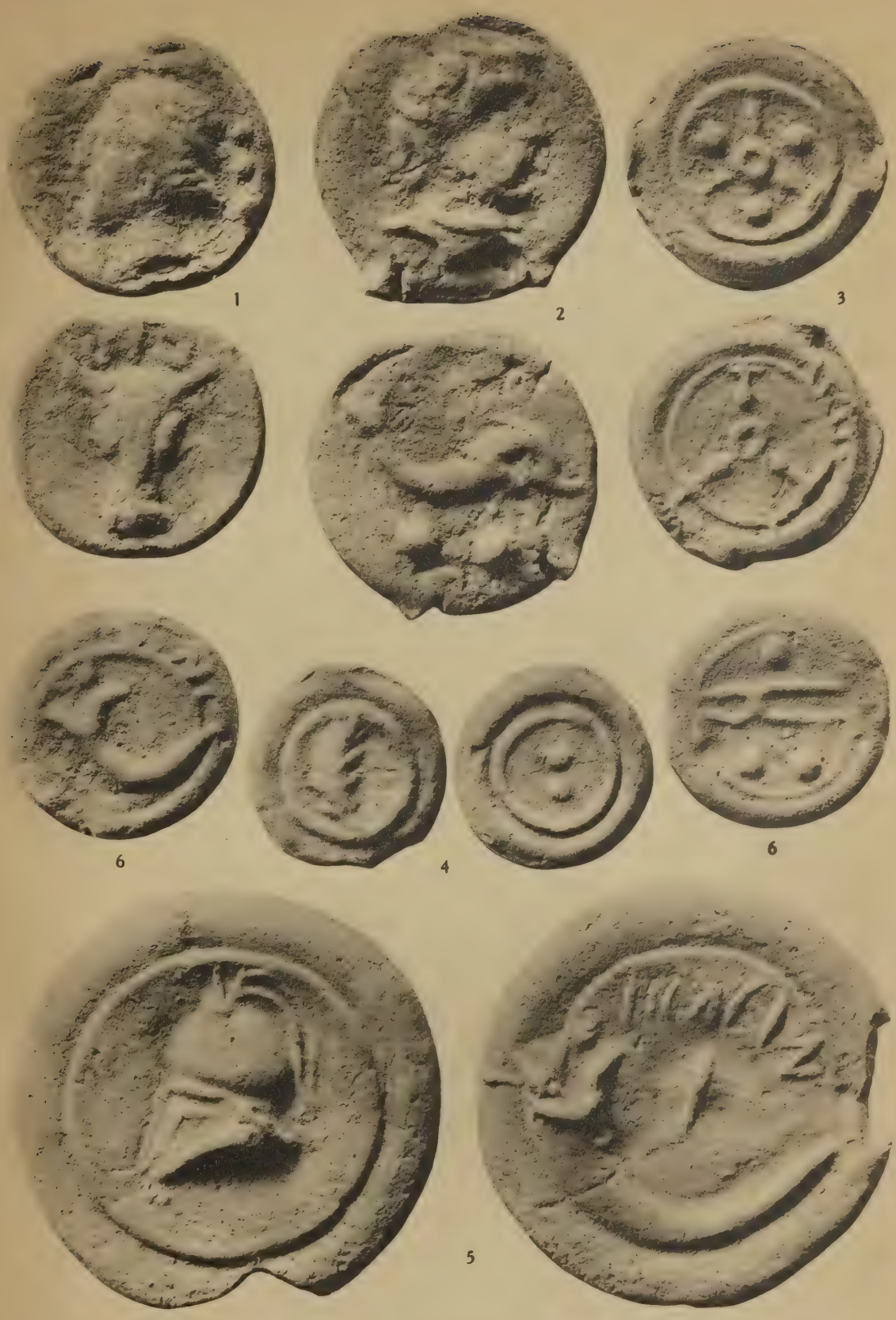


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